

Data File : VL033115.D  
Acq On : 28 Jan 2019 16:22  
Operator : SY/AP  
Sample : VSTDIC002  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

Quant Time: Jan 28 17:06:54 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL012819AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Jan 28 16:32:44 2019  
QLast Update : Mon Jan 28 16:32:44 2019  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1137729  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 3034163  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 2906497  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2121752  | 9.52     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.20% |

| Target Compounds               |      |     |        |       | Qvalue    |
|--------------------------------|------|-----|--------|-------|-----------|
| 2) Dichlorodifluoromethane     | 3.07 | 85  | 601623 | 2.841 | ppbv 97   |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 332844 | 2.584 | ppbv 99   |
| 4) Chloromethane               | 3.16 | 50  | 181338 | 2.458 | ppbv 100  |
| 5) Vinyl Chloride              | 3.29 | 62  | 194929 | 2.617 | ppbv 100  |
| 6) Bromomethane                | 3.51 | 94  | 120027 | 2.372 | ppbv 97   |
| 7) Chloroethane                | 3.60 | 64  | 68035  | 2.335 | ppbv 93   |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 483709 | 2.652 | ppbv 98   |
| 9) Propene                     | 3.03 | 41  | 128538 | 2.672 | ppbv 98   |
| 10) Heptane                    | 8.25 | 43  | 318905 | 2.328 | ppbv 98   |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 521907 | 2.231 | ppbv 97   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101 | 352548 | 2.383 | ppbv 99   |
| 13) Ethanol                    | 3.65 | 45  | 30832  | 1.607 | ppbv # 61 |
| 14) Bromoethene                | 3.79 | 108 | 149729 | 2.291 | ppbv 100  |
| 15) Acetone                    | 3.90 | 43  | 351222 | 2.230 | ppbv 95   |
| 16) 1,3-Butadiene              | 3.36 | 39  | 134828 | 2.270 | ppbv 99   |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 75196  | 2.254 | ppbv 98   |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 161205 | 2.366 | ppbv 97   |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 226405 | 2.088 | ppbv # 96 |
| 20) Methylene Chloride         | 4.41 | 84  | 168357 | 2.564 | ppbv 98   |
| 21) Allyl Chloride             | 4.47 | 41  | 237507 | 2.434 | ppbv 99   |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 152751 | 2.261 | ppbv 95   |
| 23) Vinyl Acetate              | 5.15 | 43  | 476493 | 2.378 | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.08 | 63  | 383325 | 2.254 | ppbv 98   |
| 25) Ethyl Acetate              | 5.77 | 43  | 607772 | 2.283 | ppbv 99   |
| 26) Hexane                     | 5.78 | 57  | 299209 | 2.387 | ppbv 97   |
| 27) Carbon Disulfide           | 4.62 | 76  | 379026 | 2.452 | ppbv 96   |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 452616 | 2.314 | ppbv 100  |
| 29) Chloroform                 | 5.84 | 83  | 468668 | 2.194 | ppbv 98   |
| 30) Cyclohexane                | 7.25 | 84  | 225657 | 2.415 | ppbv 87   |
| 31) cis-1,2-Dichloroethene     | 5.63 | 61  | 260689 | 2.240 | ppbv 92   |
| 32) 1,1,1-Trichloroethane      | 6.61 | 97  | 481102 | 2.219 | ppbv 99   |
| 34) 2-Butanone                 | 5.33 | 43  | 384594 | 2.182 | ppbv 100  |
| 35) Carbon Tetrachloride       | 7.13 | 117 | 531729 | 2.040 | ppbv 99   |
| 36) Benzene                    | 7.00 | 78  | 554876 | 2.233 | ppbv 95   |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 349881 | 2.016 | ppbv 100  |
| 38) Trichloroethene            | 7.95 | 130 | 229263 | 2.242 | ppbv 88   |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 200789 | 2.150 | ppbv 94   |
| 40) 1,4-Dioxane                | 7.96 | 88  | 64711  | 1.826 | ppbv # 1  |
| 41) Tetrahydrofuran            | 6.15 | 42  | 196428 | 2.189 | ppbv 99   |
| 42) Bromodichloromethane       | 7.91 | 83  | 506034 | 2.123 | ppbv 92   |
| 43) Methyl Methacrylate        | 8.14 | 69  | 207972 | 2.230 | ppbv 100  |

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL012819AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Jan 28 16:32:44 2019  
QLast Update : Mon Jan 28 16:32:44 2019  
Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 948641   | 2.254 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 246275   | 2.121 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 300342   | 2.267 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 234512   | 2.150 | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.45 | 129  | 421524   | 2.187 | ppbv   | 97       |
| 49) Bromoform                 | 13.19 | 173  | 185746   | 1.103 | ppbv # | 27       |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 521162   | 2.333 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.27 | 43   | 364161   | 2.253 | ppbv # | 97       |
| 52) Tetrachloroethene         | 11.37 | 164  | 193510   | 2.203 | ppbv   | 97       |
| 53) Toluene                   | 9.94  | 91   | 607452   | 2.281 | ppbv   | 98       |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 336294   | 2.140 | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.28 | 131  | 319912   | 2.130 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.30 | 112  | 509830   | 2.102 | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.86 | 91   | 816925   | 2.226 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.15 | 91   | 43340    | 0.128 | ppbv # | 100      |
| 60) o-Xylene                  | 13.85 | 91   | 724477   | 2.180 | ppbv   | 97       |
| 61) Styrene                   | 13.68 | 104  | 476002   | 2.245 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.83 | 105  | 1026995  | 2.171 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 519937   | 2.106 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 256060   | 2.131 | ppbv   | 94       |
| 65) tert-Butylbenzene         | 16.90 | 119  | 470782   | 1.124 | ppbv # | 19       |
| 66) Benzyl Chloride           | 17.15 | 91   | 469579   | 1.967 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.46 | 105  | 1284888  | 2.143 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 1046609  | 2.151 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.71 | 91   | 1021073  | 2.087 | ppbv   | 97       |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 733130   | 2.186 | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 782550   | 2.143 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 753203   | 2.090 | ppbv   | 96       |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 813328   | 2.038 | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 466785   | 1.987 | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 431373   | 2.016 | ppbv   | 98       |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 437241   | 2.067 | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 234205   | 1.441 | ppbv   | 99       |
| 79) Naphthalene               | 22.41 | 128  | 265816   | 0.791 | ppbv   | 96       |
| 80) Naphthalene,2-methyl-     | 25.12 | 142  | 109080   | 1.069 | ppbv   | 94       |
| 81) 1,2,4-Trichlorobenzene    | 22.14 | 180  | 253440   | 1.561 | ppbv   | 100      |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Sample : VSTDICC002

Misc : 400ml/MSVOA L

ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
VSTDICC002

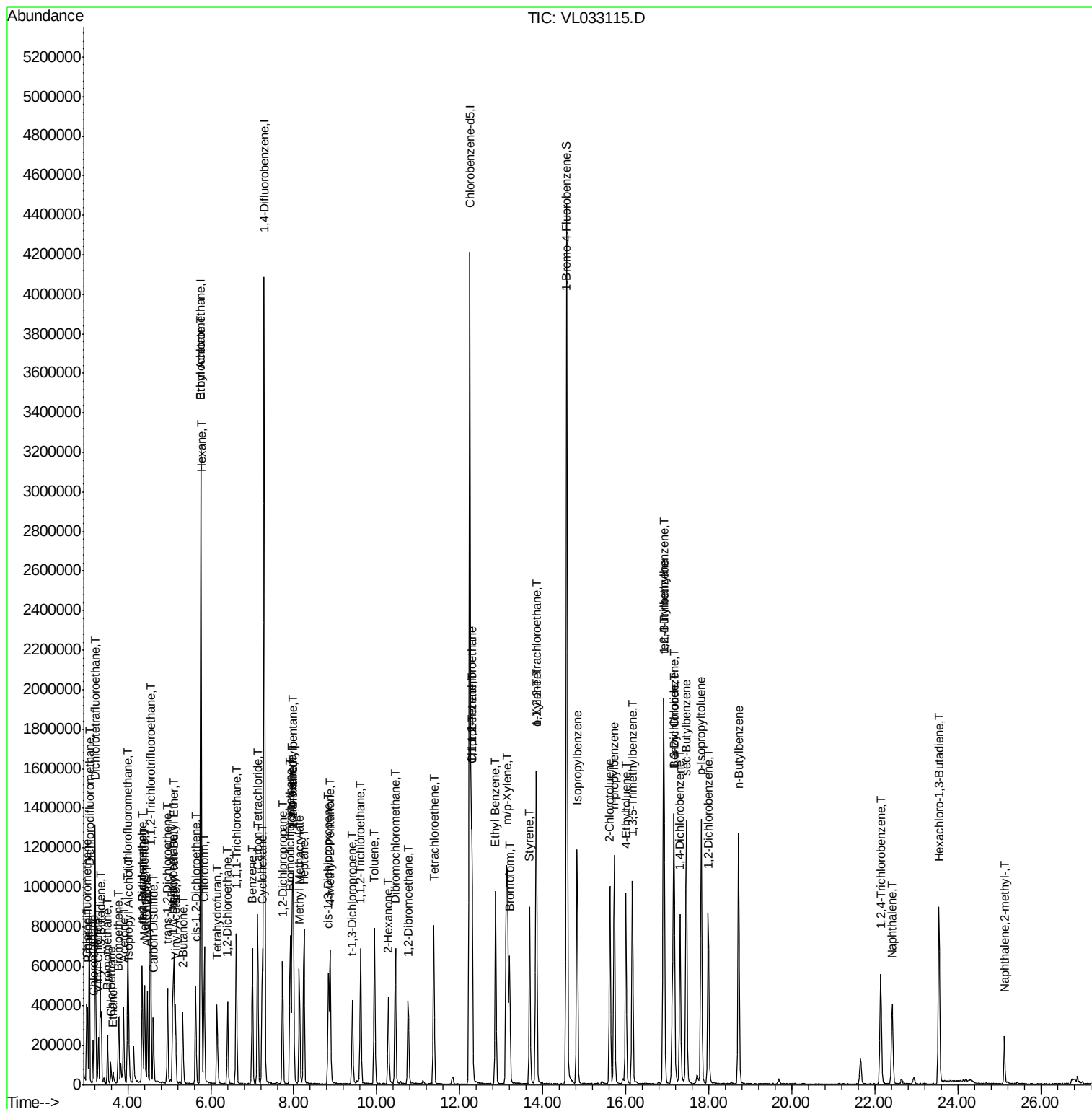
Quant Time: Jan 28 17:06:54 2019

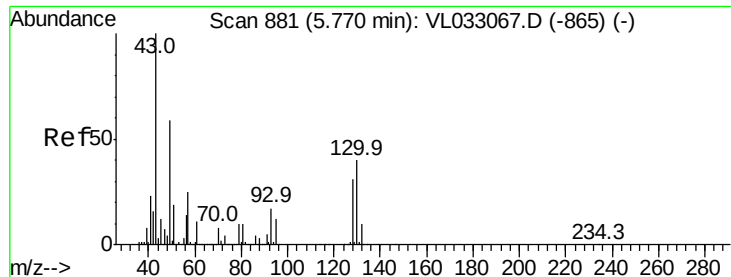
Quant Method : Z:\VOASRV\HPCHEM1\MSV0A\_L\METHODS\VL012819AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Mon Jan 28 16:32:44 2019

QLast Update : Mon Jan 28 16:32:44 2019

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

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Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

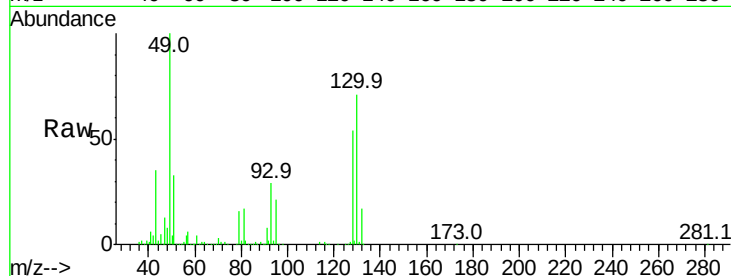
Tgt Ion: 49 Resp: 1137729

Ion Ratio Lower Upper

49 100

128 53.8 25.9 77.7

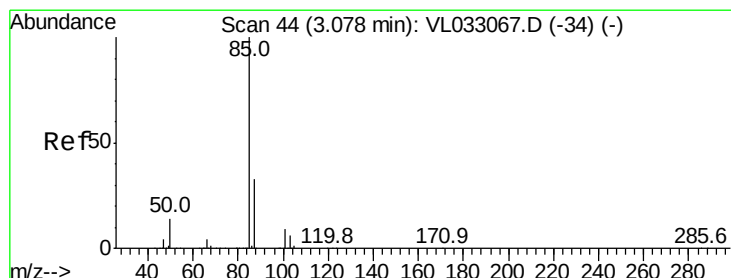
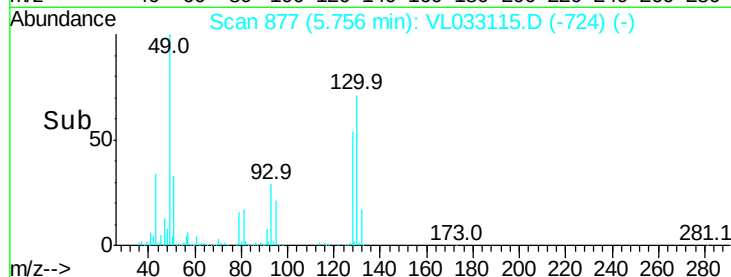
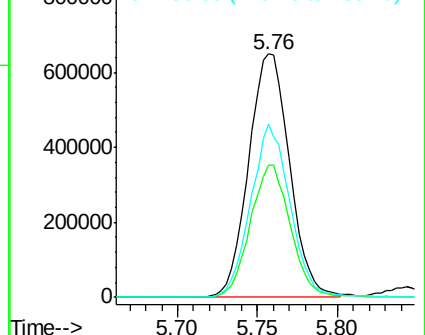
130 68.6 32.9 98.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 2.841 ppbv

RT: 3.07 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033115.D

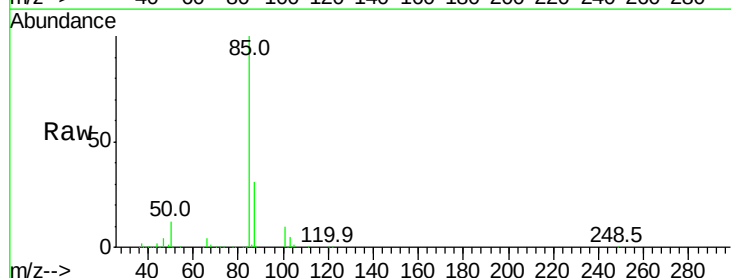
Acq: 28 Jan 2019 16:22

Tgt Ion: 85 Resp: 601623

Ion Ratio Lower Upper

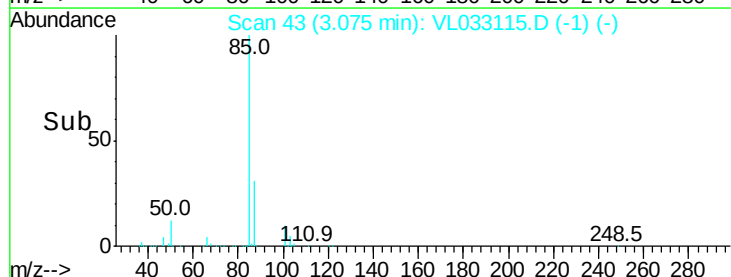
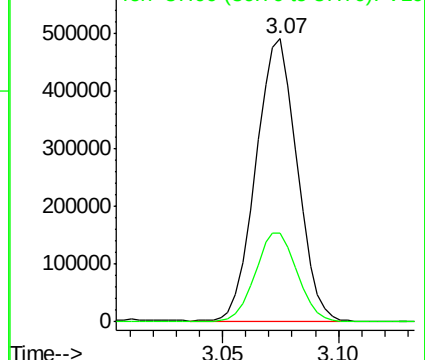
85 100

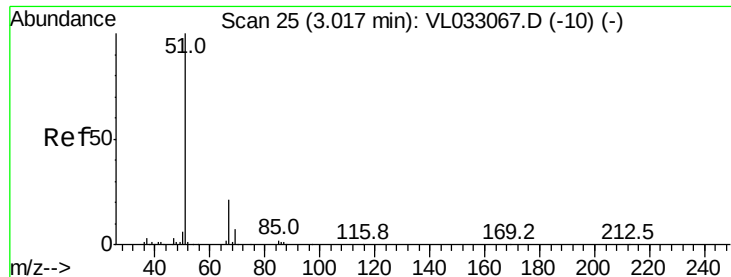
87 31.4 26.4 39.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.584 ppbv

RT: 3.01 min Scan# 23

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

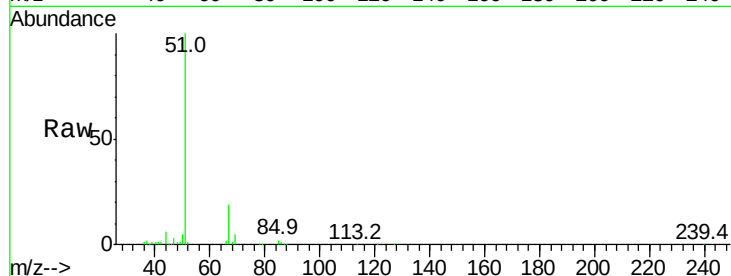
VSTDIC002

Tgt Ion: 51 Resp: 332844

Ion Ratio Lower Upper

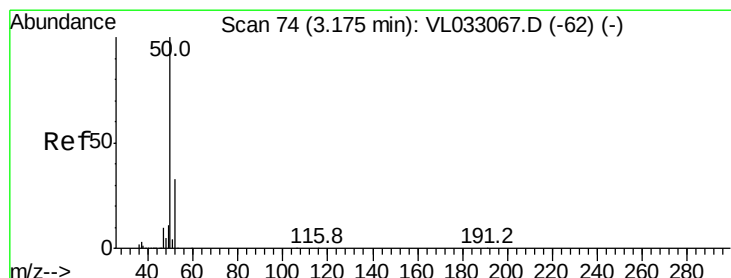
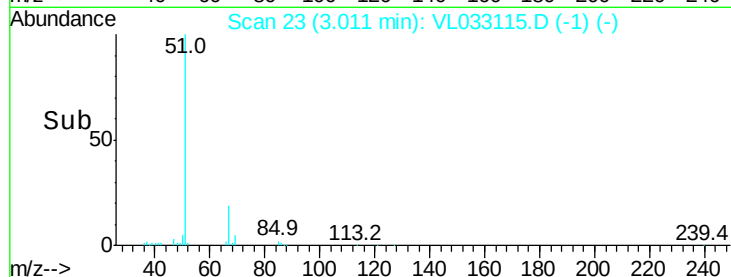
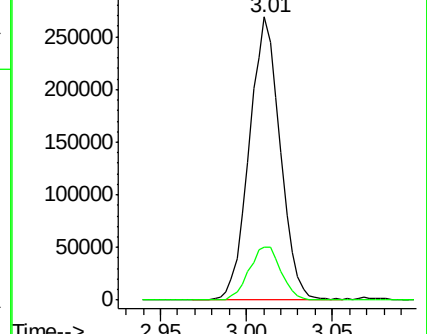
51 100

67 19.7 16.2 24.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 2.458 ppbv

RT: 3.16 min Scan# 71

Delta R.T. -0.01 min

Lab File: VL033115.D

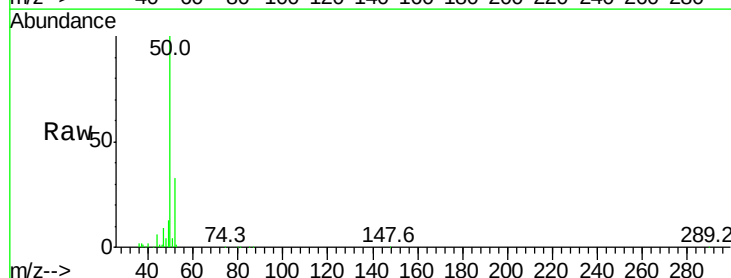
Acq: 28 Jan 2019 16:22

Tgt Ion: 50 Resp: 181338

Ion Ratio Lower Upper

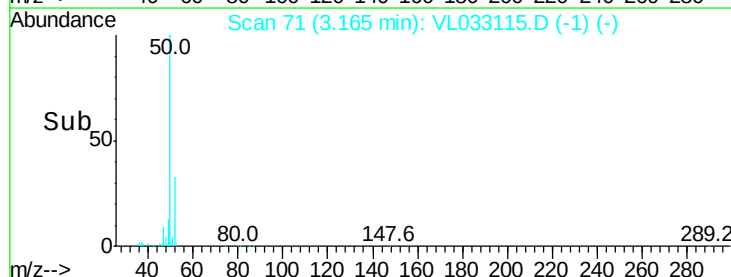
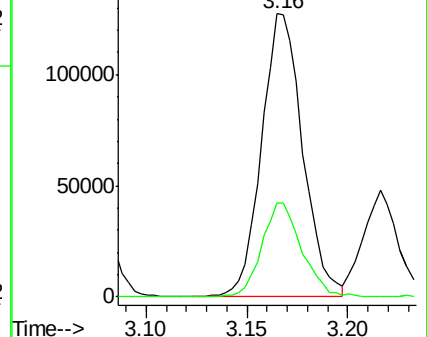
50 100

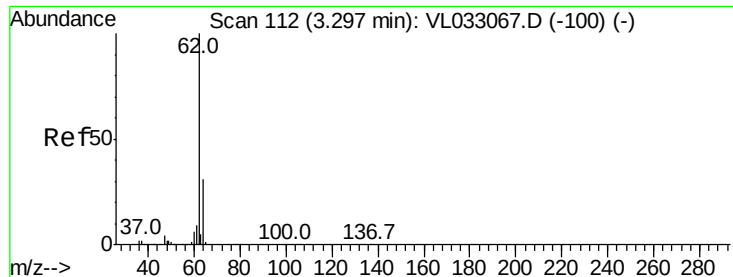
52 33.9 27.0 40.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 2.617 ppbv

RT: 3.29 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

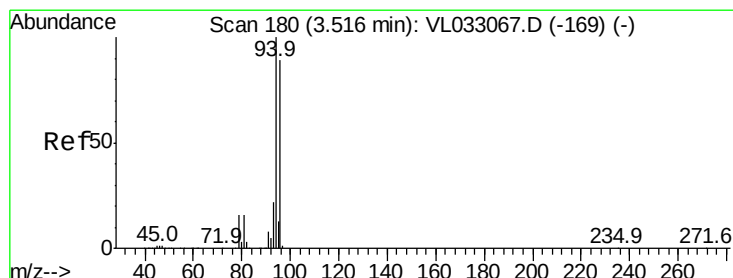
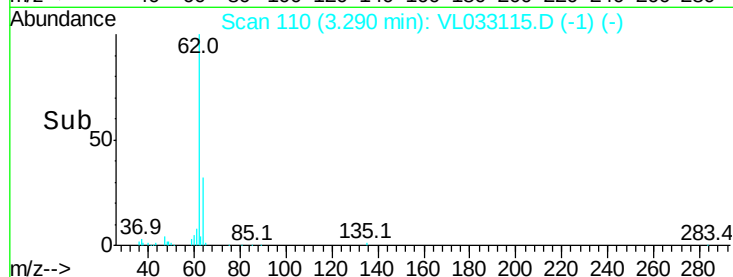
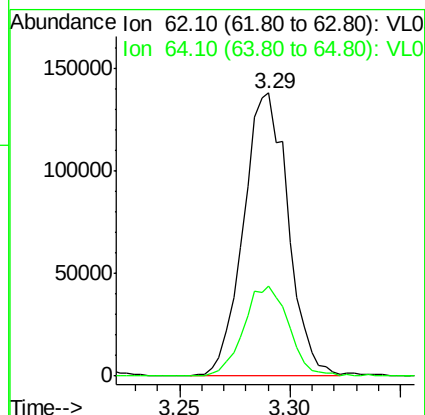
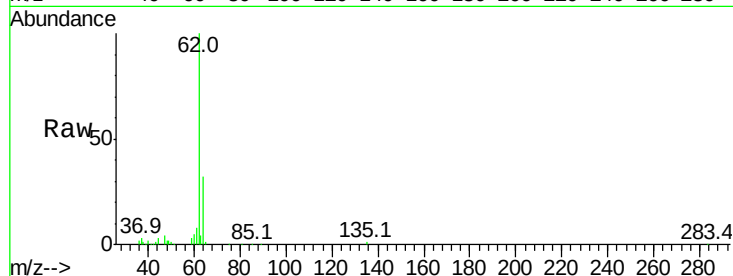
VSTDIC002

Tgt Ion: 62 Resp: 194929

Ion Ratio Lower Upper

62 100

64 31.9 25.7 38.5



#6

Bromomethane

Concen: 2.372 ppbv

RT: 3.51 min Scan# 179

Delta R.T. -0.00 min

Lab File: VL033115.D

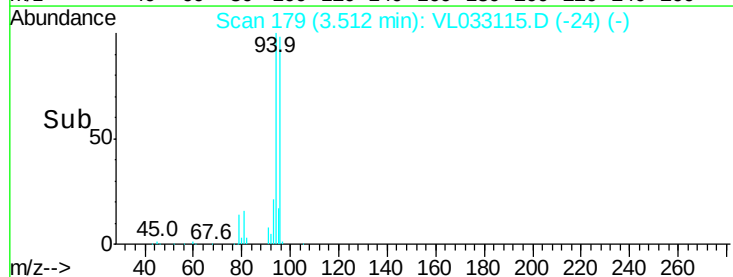
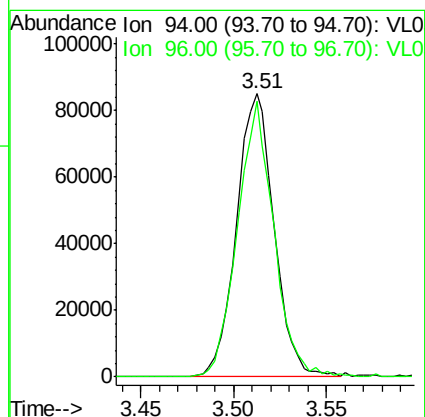
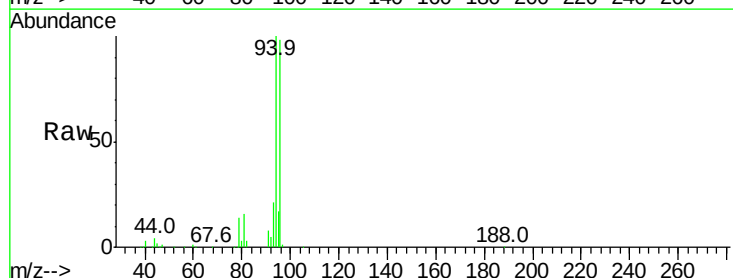
Acq: 28 Jan 2019 16:22

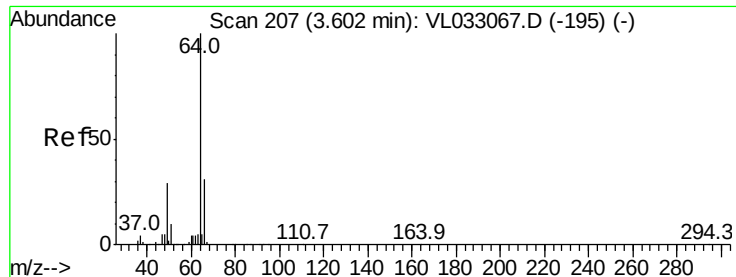
Tgt Ion: 94 Resp: 120027

Ion Ratio Lower Upper

94 100

96 97.6 75.4 113.2





#7

Chloroethane

Concen: 2.335 ppbv

RT: 3.60 min Scan# 205

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

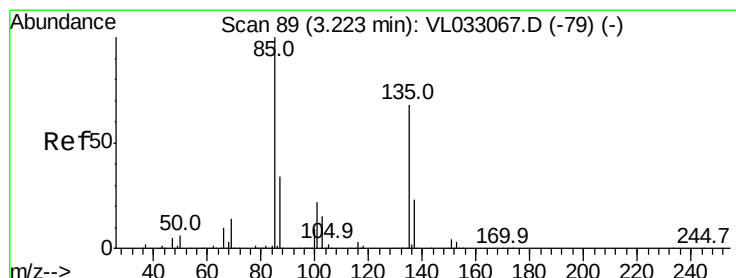
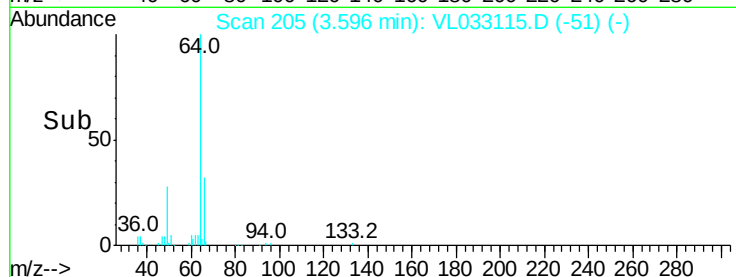
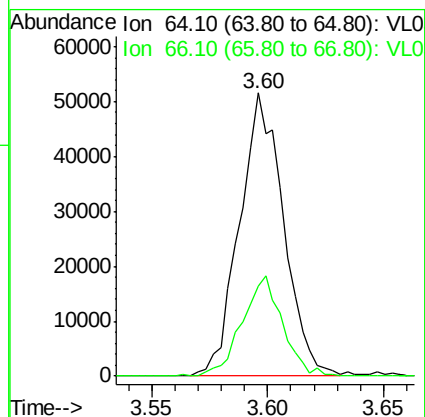
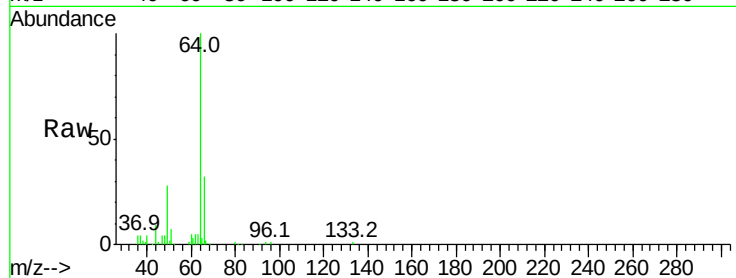
VSTDIC002

Tgt Ion: 64 Resp: 68035

Ion Ratio Lower Upper

64 100

66 33.7 24.0 36.0



#8

Dichlorotetrafluoroethane

Concen: 2.652 ppbv

RT: 3.22 min Scan# 87

Delta R.T. -0.00 min

Lab File: VL033115.D

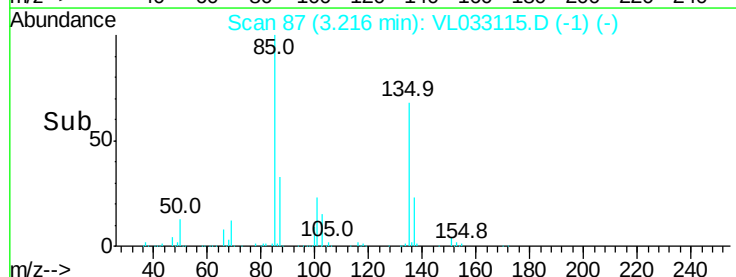
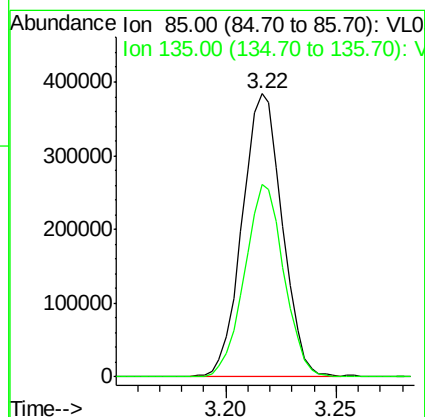
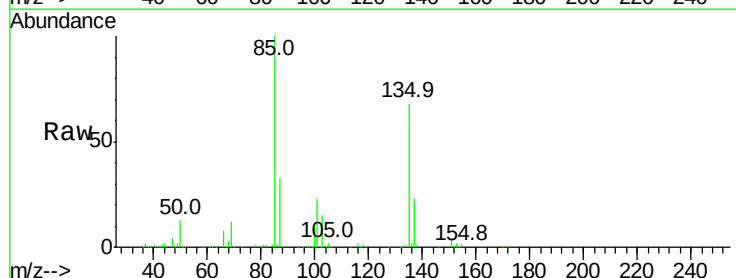
Acq: 28 Jan 2019 16:22

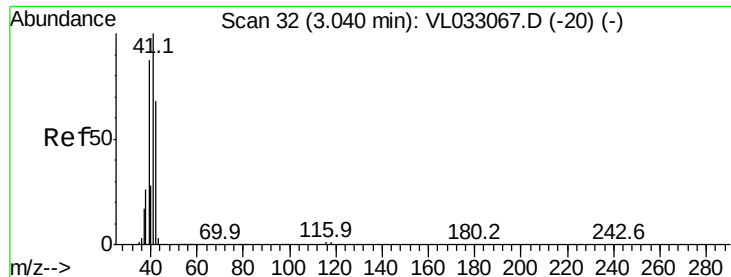
Tgt Ion: 85 Resp: 483709

Ion Ratio Lower Upper

85 100

135 67.0 54.8 82.2





#9

Propene

Concen: 2.672 ppbv

RT: 3.03 min Scan# 30

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

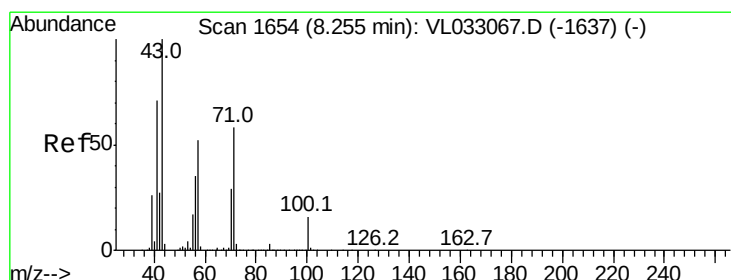
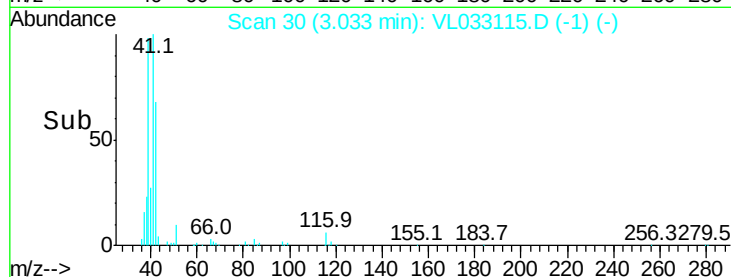
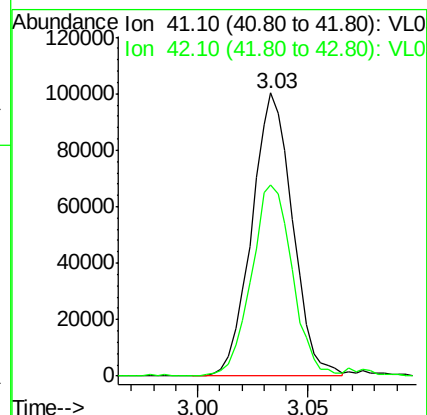
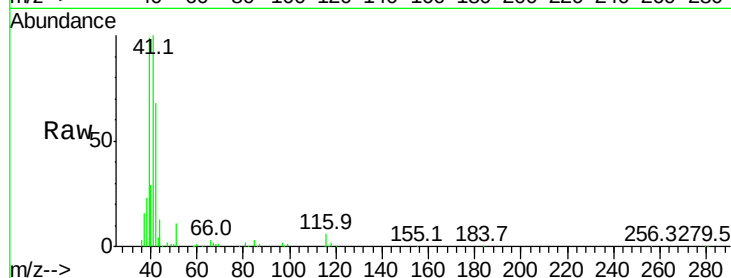
VSTDIC002

Tgt Ion: 41 Resp: 128538

Ion Ratio Lower Upper

41 100

42 69.7 54.6 82.0



#10

Heptane

Concen: 2.328 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.00 min

Lab File: VL033115.D

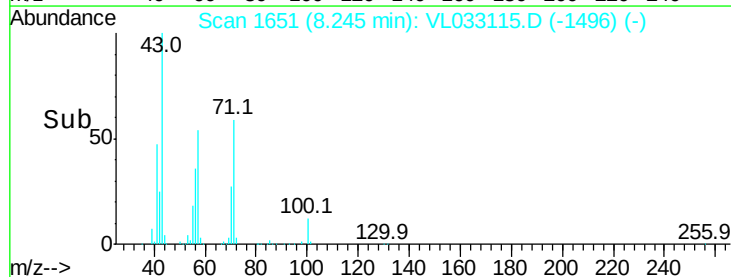
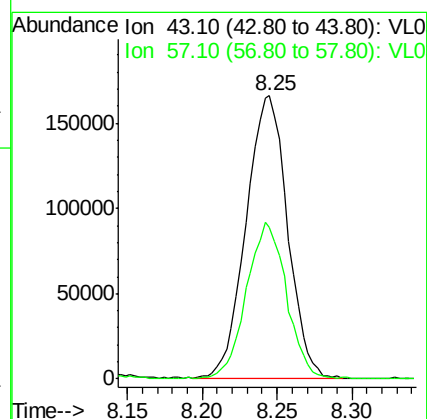
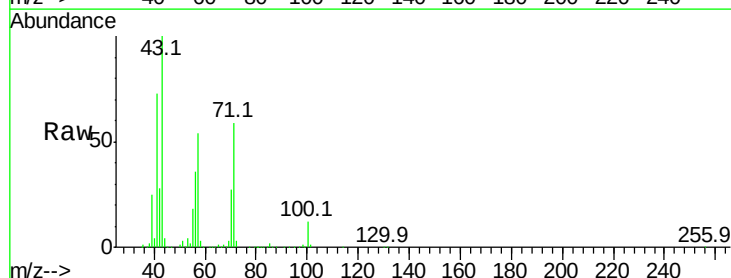
Acq: 28 Jan 2019 16:22

Tgt Ion: 43 Resp: 318905

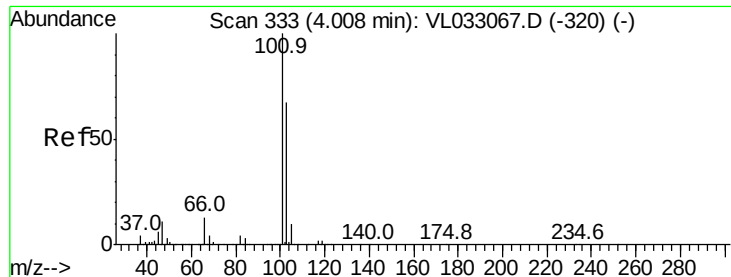
Ion Ratio Lower Upper

43 100

57 53.9 42.2 63.2



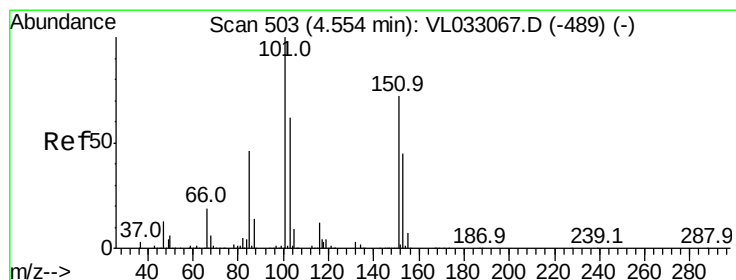
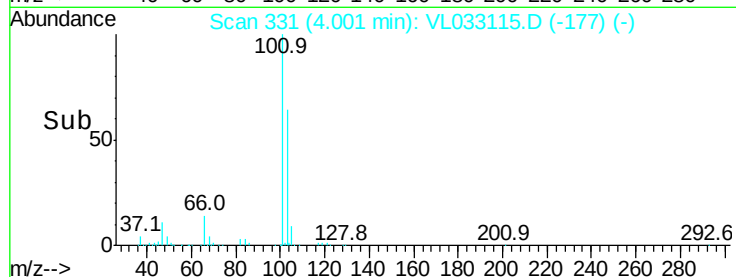
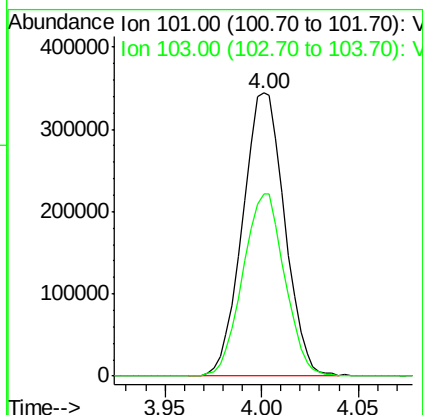
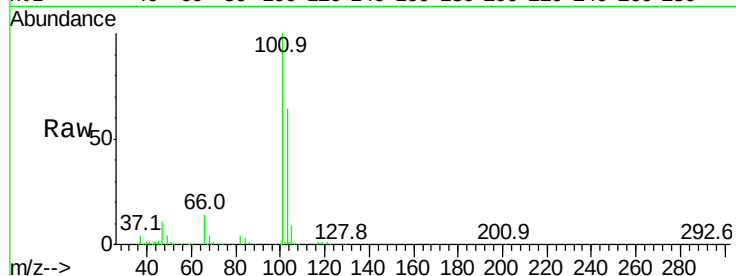




#11  
 Trichlorofluoromethane  
 Concen: 2.231 ppbv  
 RT: 4.00 min Scan# 331  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

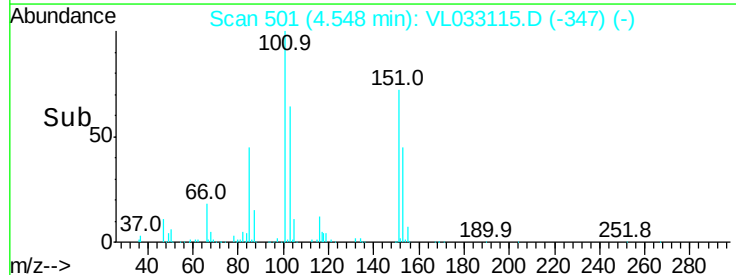
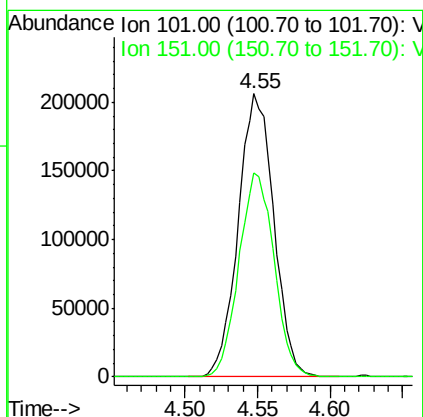
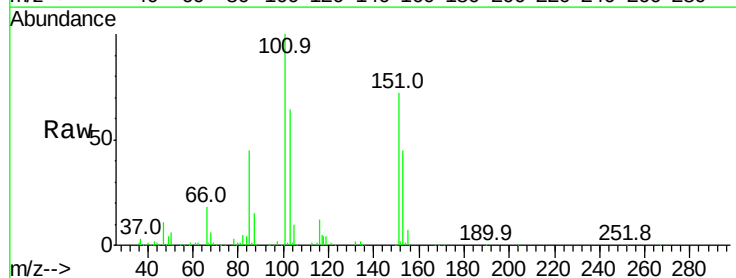
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

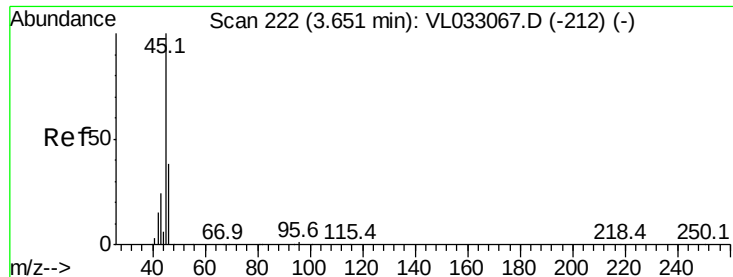
Tgt Ion:101 Resp: 521907  
 Ion Ratio Lower Upper  
 101 100  
 103 64.2 49.4 74.0



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 2.383 ppbv  
 RT: 4.55 min Scan# 501  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

Tgt Ion:101 Resp: 352548  
 Ion Ratio Lower Upper  
 101 100  
 151 71.5 57.9 86.9





#13

Ethanol

Concen: 1.607 ppbv

RT: 3.65 min Scan# 221

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

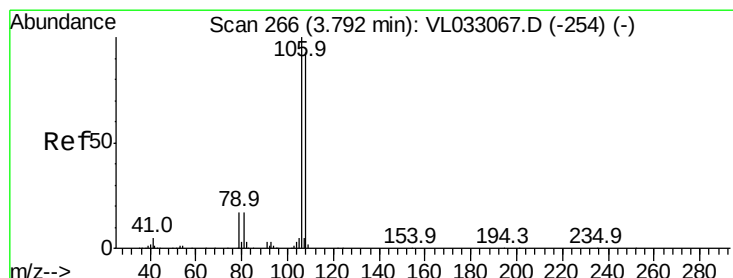
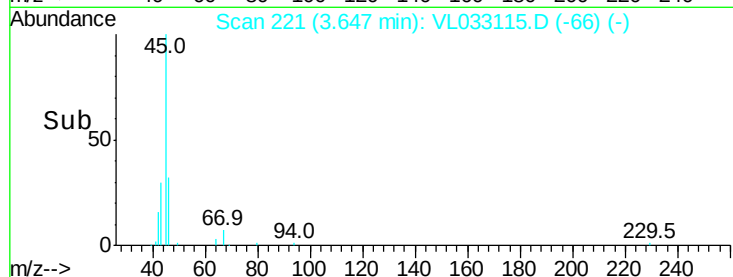
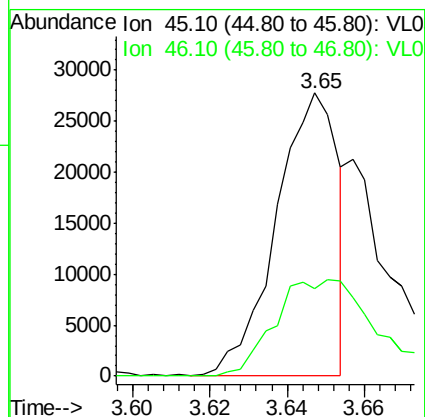
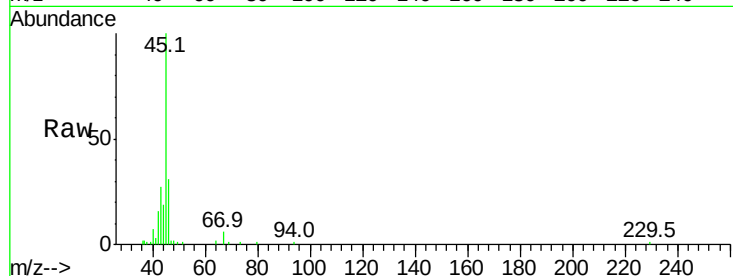
VSTDIC002

Tgt Ion: 45 Resp: 30832

Ion Ratio Lower Upper

45 100

46 60.8 15.0 60.2#



#14

Bromoethene

Concen: 2.291 ppbv

RT: 3.79 min Scan# 264

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

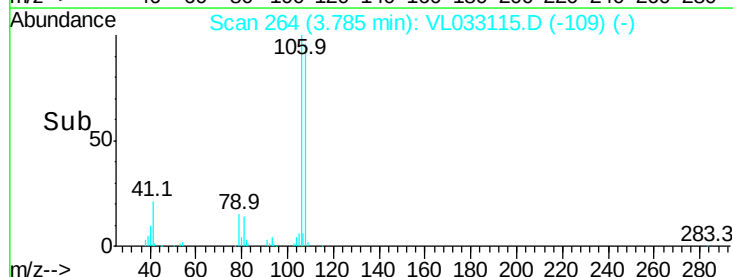
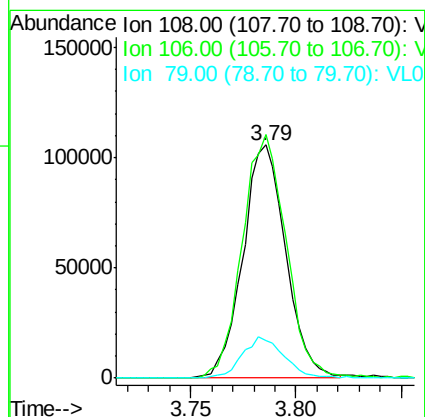
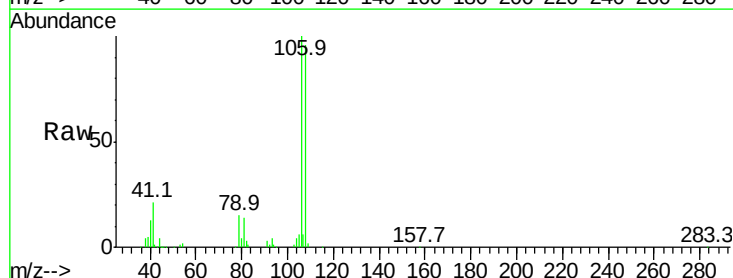
Tgt Ion: 108 Resp: 149729

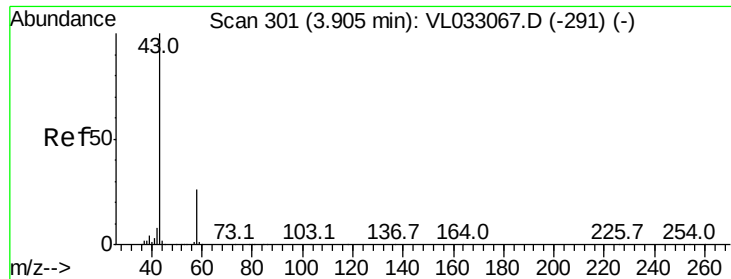
Ion Ratio Lower Upper

108 100

106 107.3 85.5 128.3

79 17.6 13.8 20.6





#15

Acetone

Concen: 2.230 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

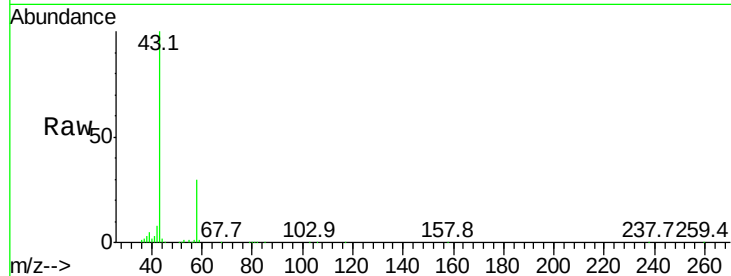
VSTDIC002

Tgt Ion: 43 Resp: 351222

Ion Ratio Lower Upper

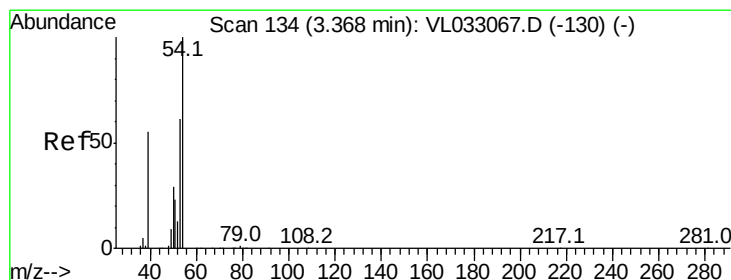
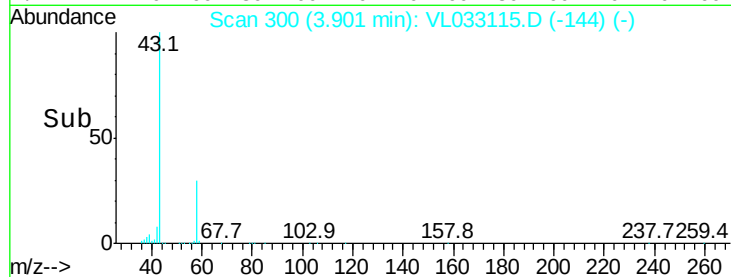
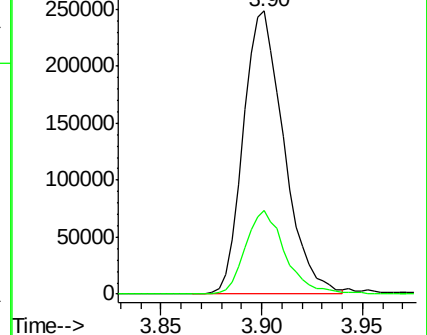
43 100

58 29.1 21.1 31.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 2.270 ppbv

RT: 3.36 min Scan# 132

Delta R.T. -0.00 min

Lab File: VL033115.D

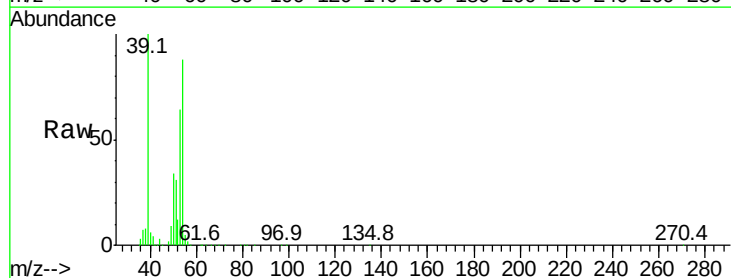
Acq: 28 Jan 2019 16:22

Tgt Ion: 39 Resp: 134828

Ion Ratio Lower Upper

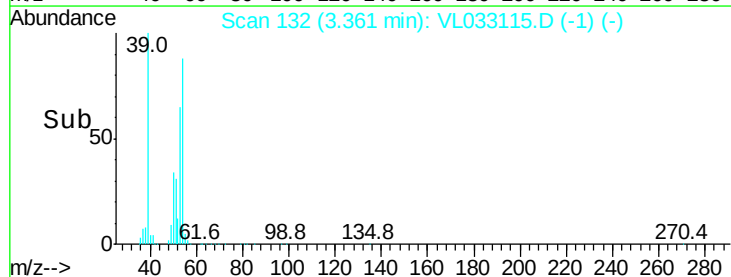
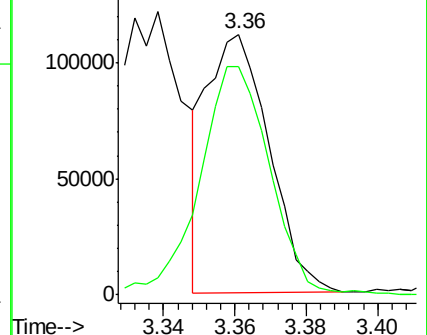
39 100

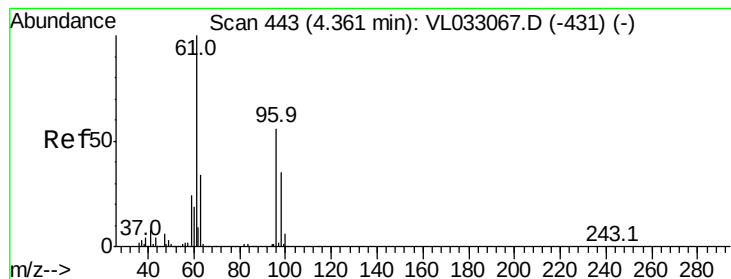
54 100.7 80.0 120.0



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 2.254 ppbv

RT: 4.36 min Scan# 443

Delta R.T. 0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

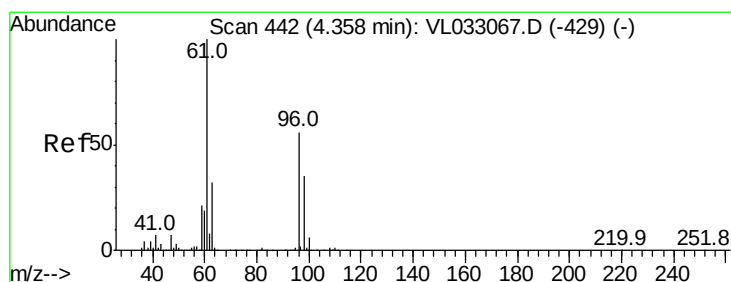
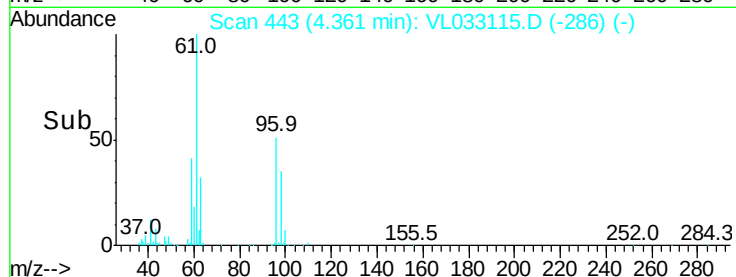
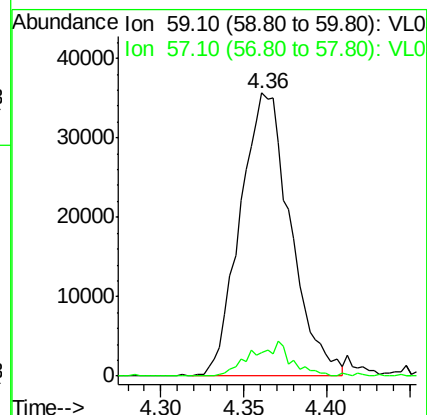
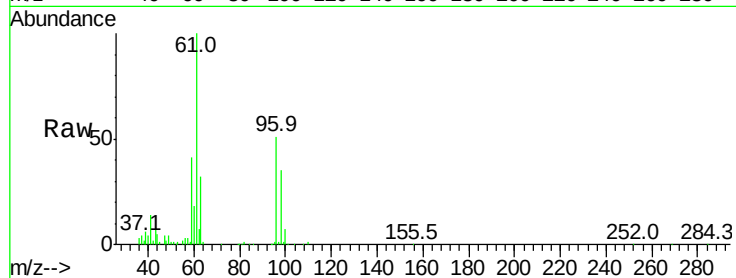
VSTDIC002

Tgt Ion: 59 Resp: 75196

Ion Ratio Lower Upper

59 100

57 10.0 7.4 11.2



#18

1,1-Dichloroethene

Concen: 2.366 ppbv

RT: 4.35 min Scan# 440

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

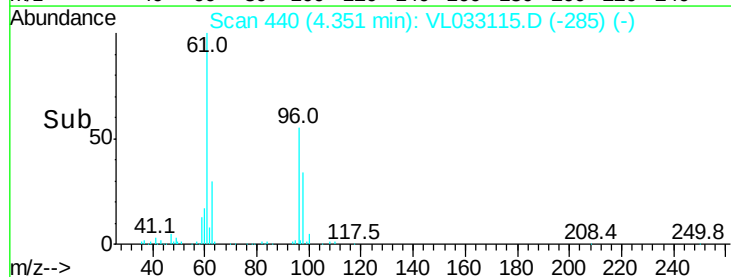
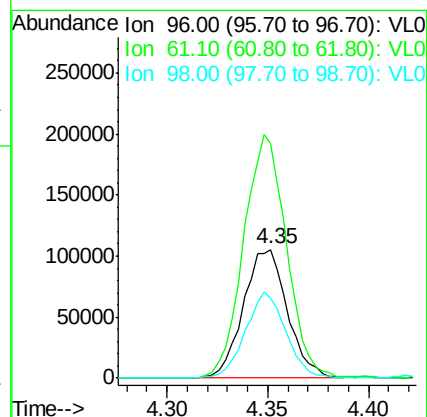
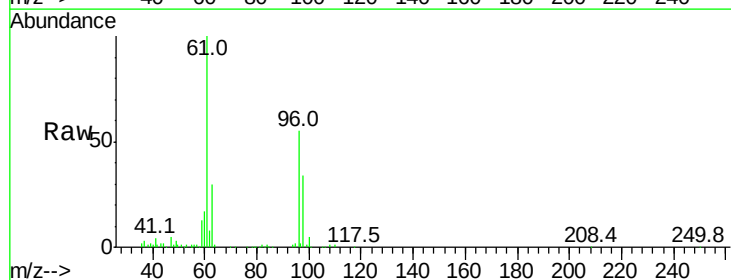
Tgt Ion: 96 Resp: 161205

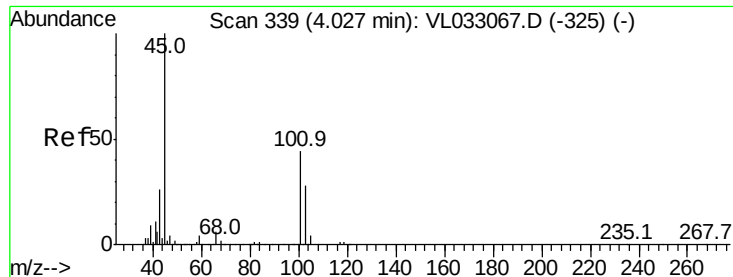
Ion Ratio Lower Upper

96 100

61 182.4 142.6 213.8

98 61.7 51.4 77.0





#19

Isopropyl Alcohol

Concen: 2.088 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

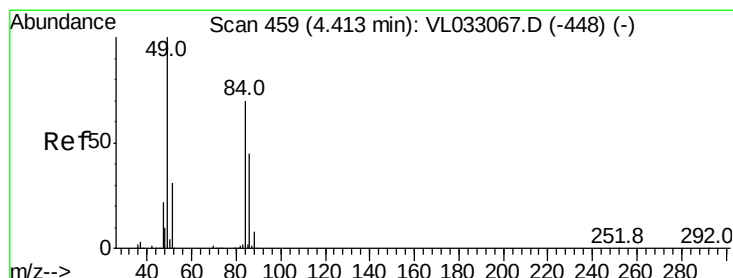
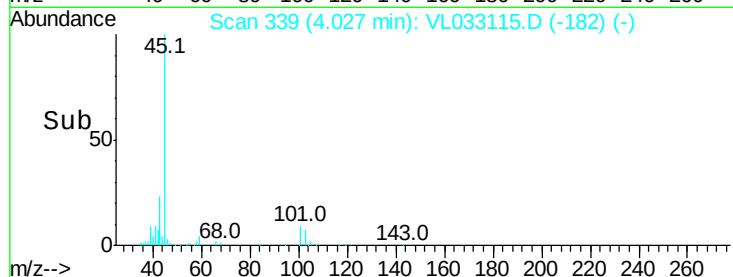
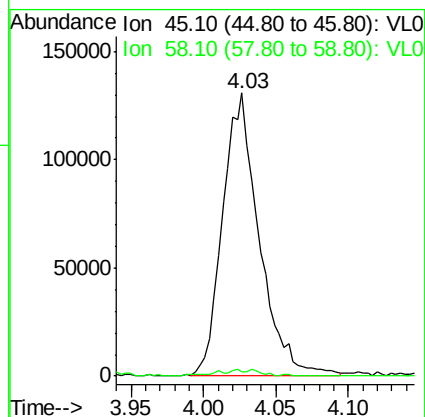
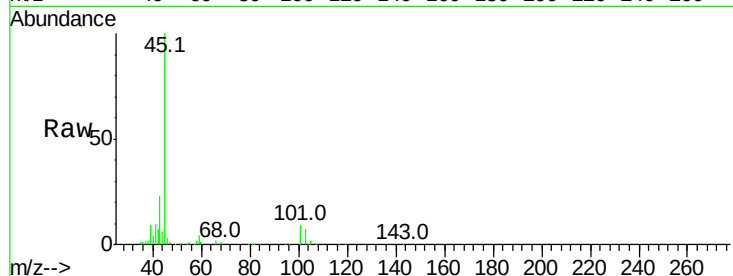
VSTDIC002

Tgt Ion: 45 Resp: 226405

Ion Ratio Lower Upper

45 100

58 3.2 1.4 2.2#



#20

Methylene Chloride

Concen: 2.564 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Tgt Ion: 84 Resp: 168357

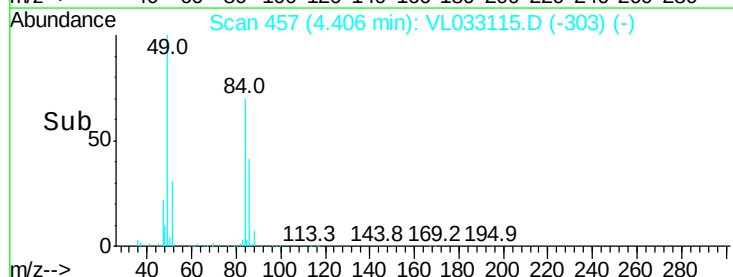
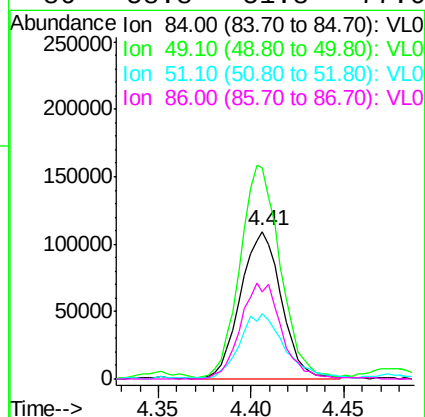
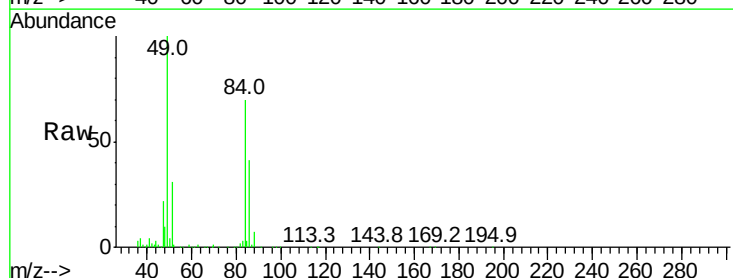
Ion Ratio Lower Upper

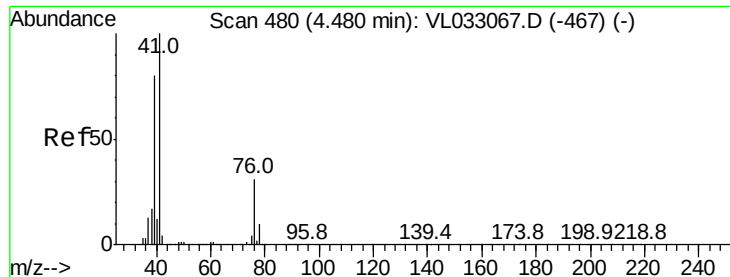
84 100

49 141.5 113.8 170.6

51 43.6 34.5 51.7

86 58.8 51.8 77.6





#21

Allyl Chloride

Concen: 2.434 ppbv

RT: 4.47 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

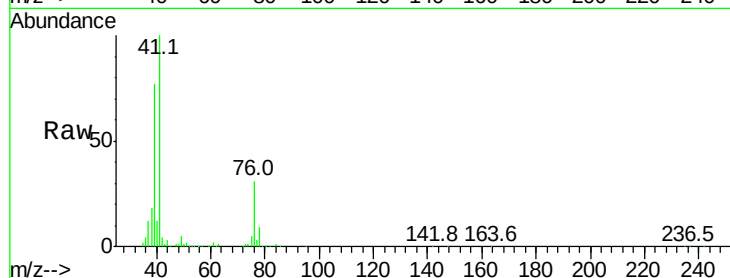
Tgt Ion: 41 Resp: 237507

Ion Ratio Lower Upper

41 100

76 30.9 24.6 37.0

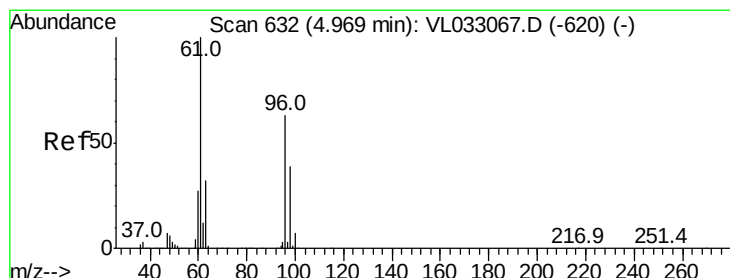
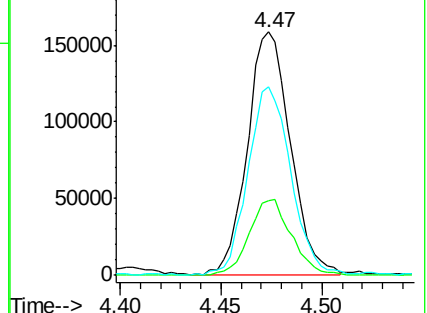
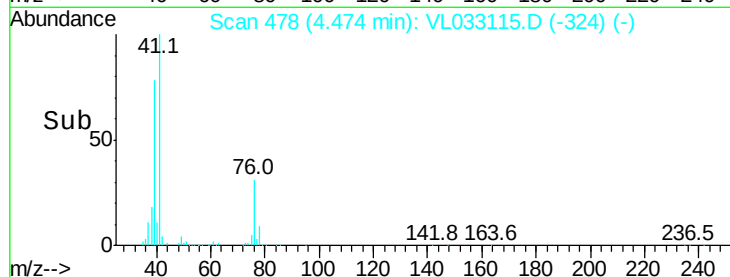
39 78.0 63.3 94.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 2.261 ppbv

RT: 4.96 min Scan# 628

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

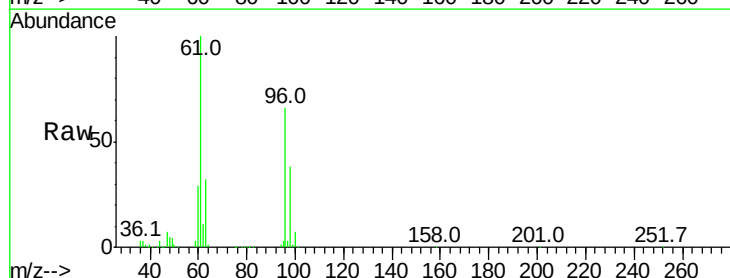
Tgt Ion: 96 Resp: 152751

Ion Ratio Lower Upper

96 100

61 152.8 127.6 191.4

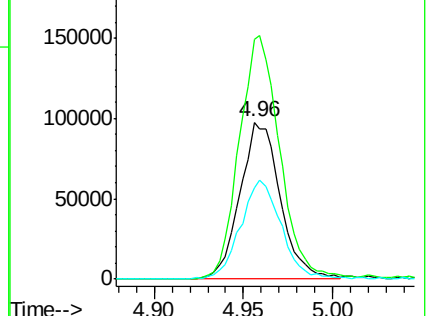
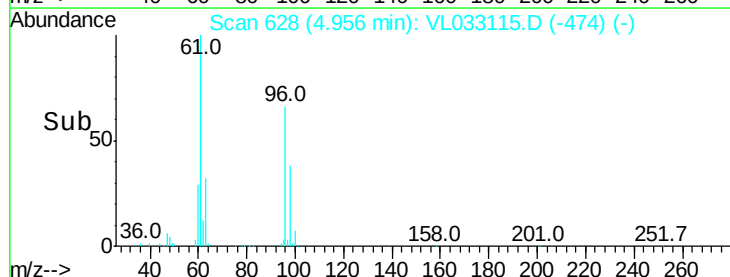
98 57.9 48.6 73.0

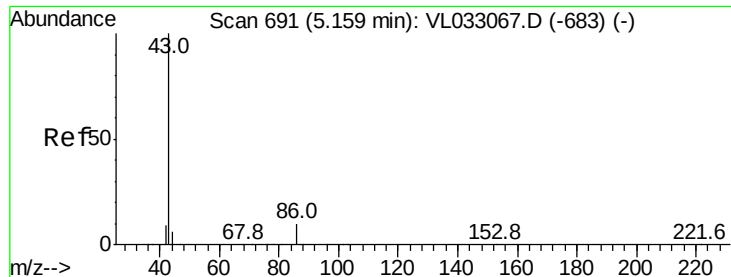


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 2.378 ppbv

RT: 5.15 min Scan# 688

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tgt Ion: 43 Resp: 476493

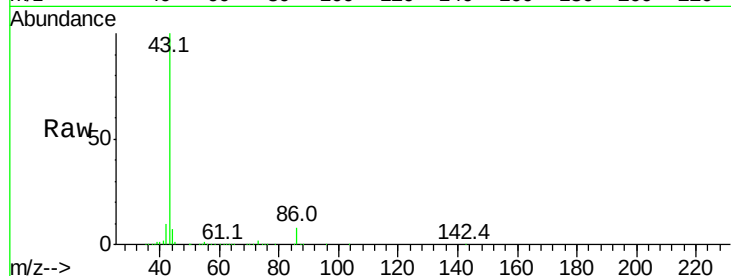
Ion Ratio Lower Upper

43 100

86 7.8 6.7 10.1

42 10.2 8.1 12.1

44 6.2 4.3 6.5

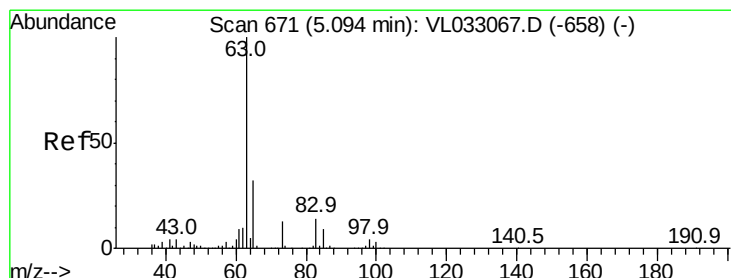
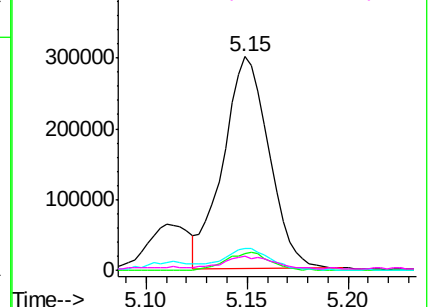
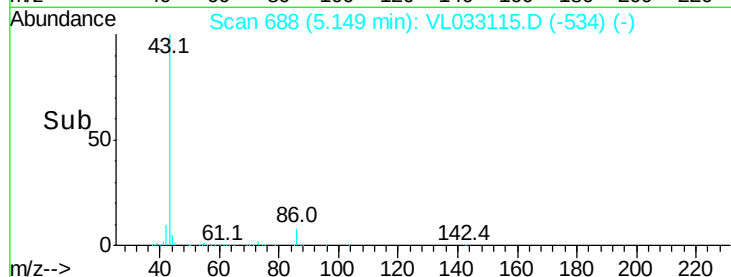


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 2.254 ppbv

RT: 5.08 min Scan# 668

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

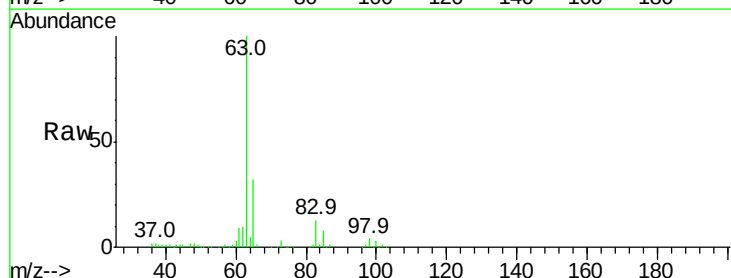
Tgt Ion: 63 Resp: 383325

Ion Ratio Lower Upper

63 100

98 4.1 2.5 7.4

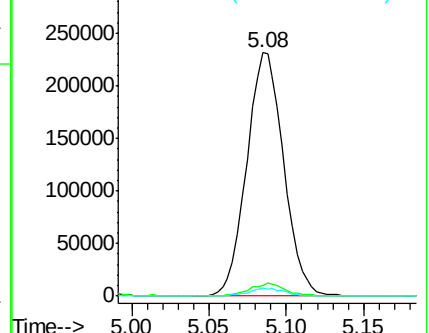
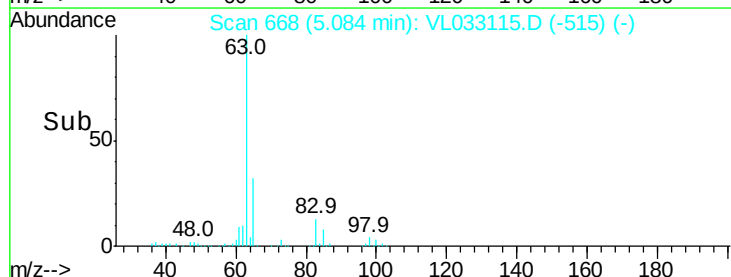
100 3.4 1.4 4.2

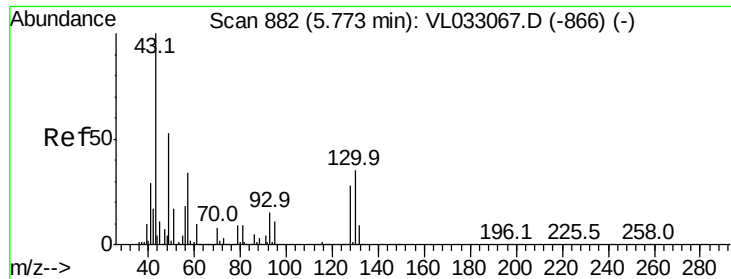


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





#25

Ethyl Acetate

Concen: 2.283 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.00 min

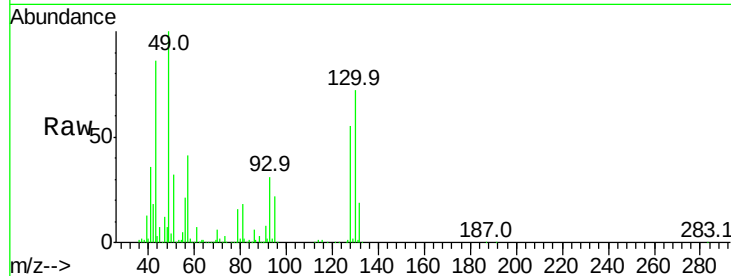
Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

Tgt Ion: 43 Resp: 607772  
Ion Ratio Lower Upper

|    |     |     |      |
|----|-----|-----|------|
| 43 | 100 |     |      |
| 45 | 9.3 | 8.0 | 12.0 |
| 61 | 9.0 | 7.6 | 11.4 |
| 70 | 7.2 | 5.9 | 8.9  |



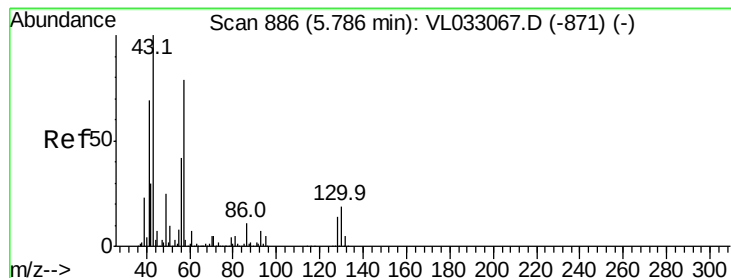
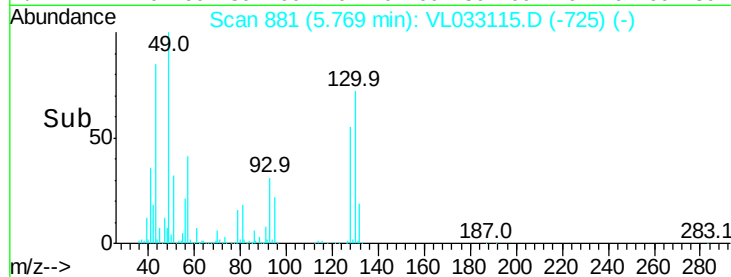
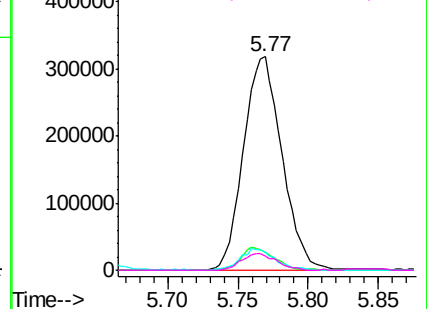
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 2.387 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Tgt Ion: 57 Resp: 299209  
Ion Ratio Lower Upper

|    |       |       |       |
|----|-------|-------|-------|
| 57 | 100   |       |       |
| 41 | 87.7  | 69.9  | 104.9 |
| 43 | 204.6 | 169.0 | 253.4 |
| 56 | 53.9  | 42.0  | 63.0  |

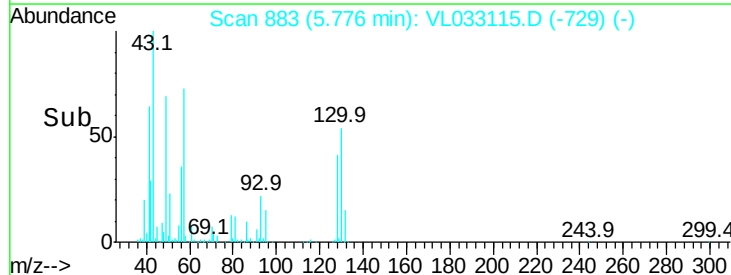
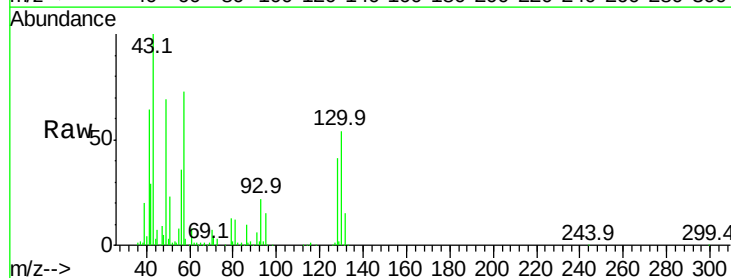
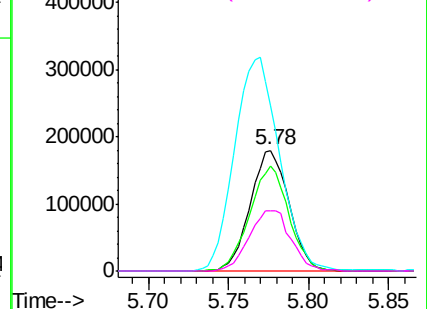
Abundance

Ion 57.10 (56.80 to 57.80): VL0

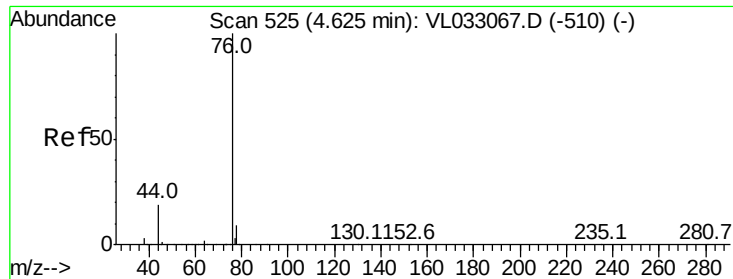
Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0







#27

Carbon Disulfide

Concen: 2.452 ppbv

RT: 4.62 min Scan# 523

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

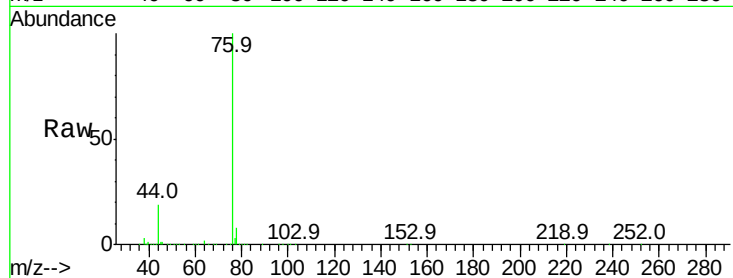
Tgt Ion: 76 Resp: 379026

Ion Ratio Lower Upper

76 100

44 20.9 15.0 22.4

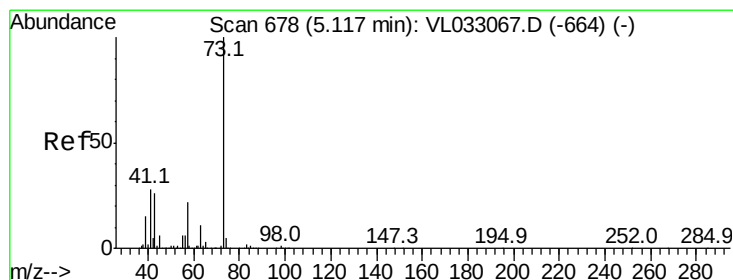
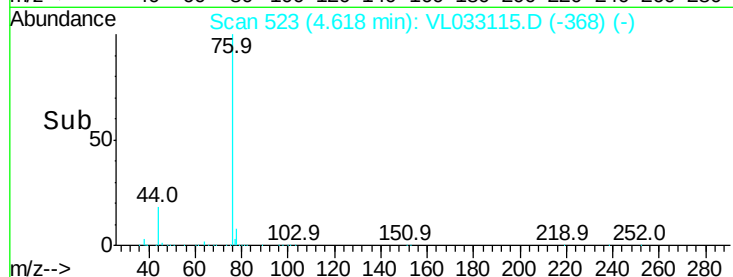
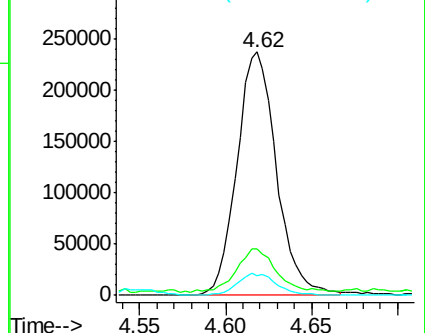
78 9.1 7.6 11.4



Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 2.314 ppbv

RT: 5.11 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL033115.D

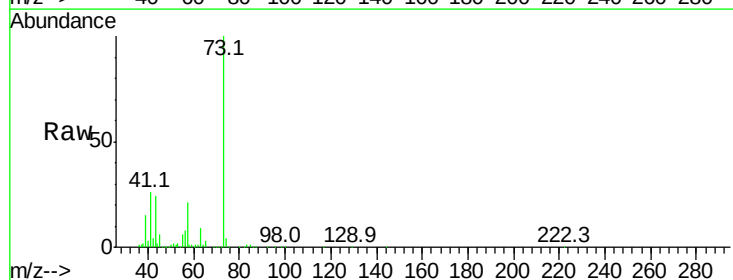
Acq: 28 Jan 2019 16:22

Tgt Ion: 73 Resp: 452616

Ion Ratio Lower Upper

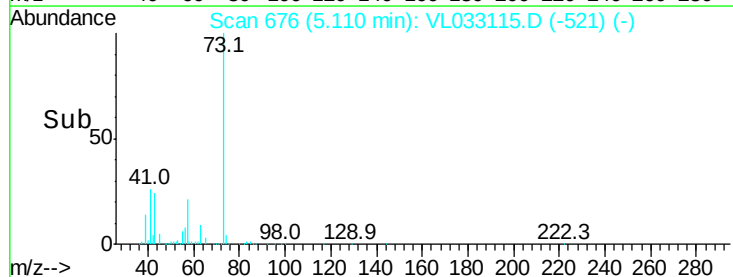
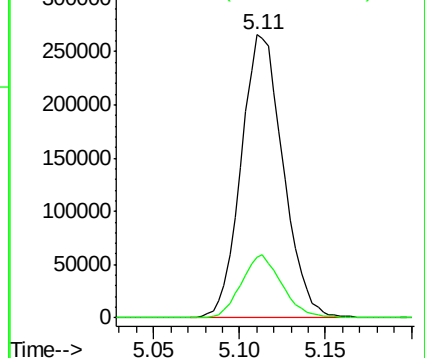
73 100

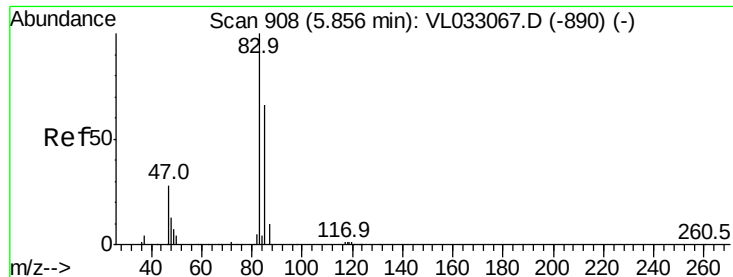
57 21.8 17.6 26.4



Abundance Ion 73.10 (72.80 to 73.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#29

Chloroform

Concen: 2.194 ppbv

RT: 5.84 min Scan# 904

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

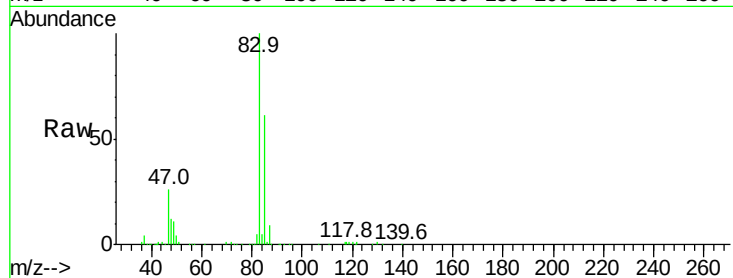
VSTDIC002

Tgt Ion: 83 Resp: 468668

Ion Ratio Lower Upper

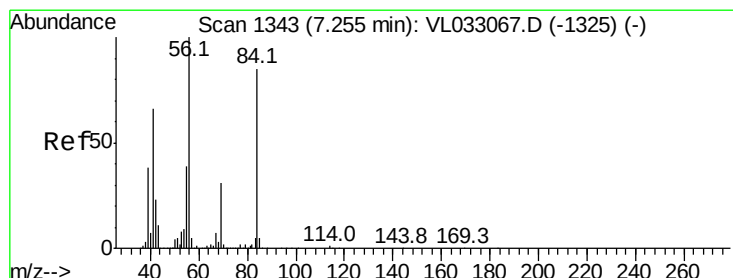
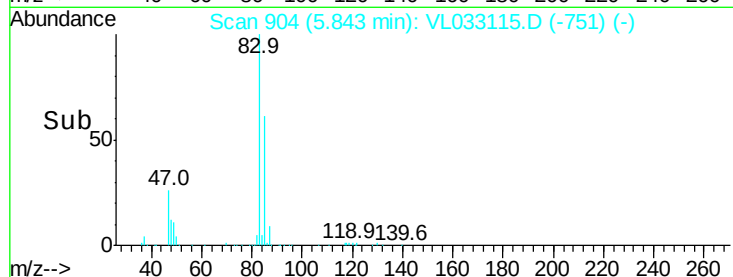
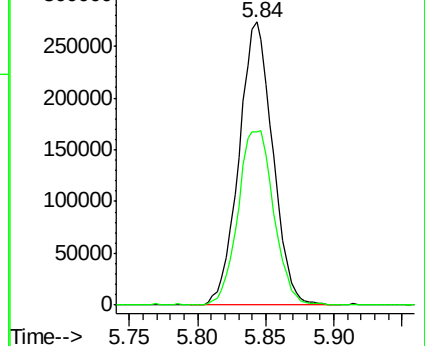
83 100

85 61.1 50.4 75.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 2.415 ppbv

RT: 7.25 min Scan# 1340

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

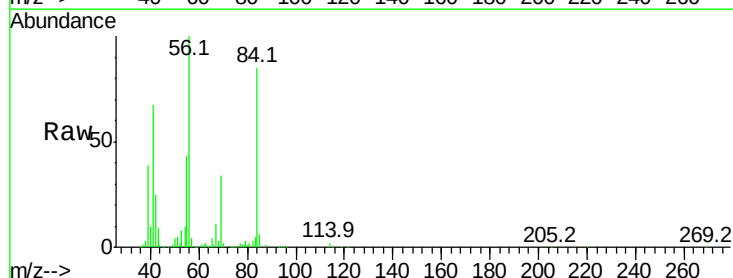
Tgt Ion: 84 Resp: 225657

Ion Ratio Lower Upper

84 100

56 149.8 102.4 153.6

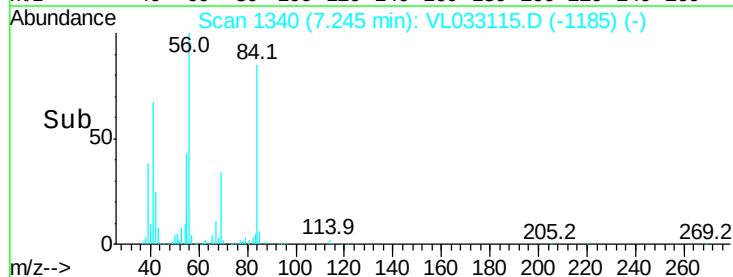
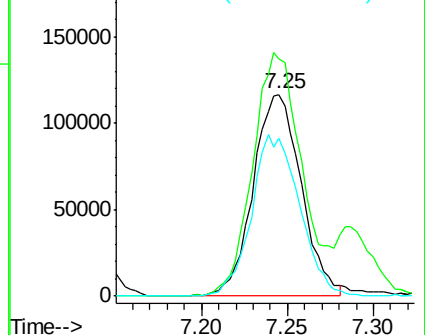
41 80.6 62.7 94.1

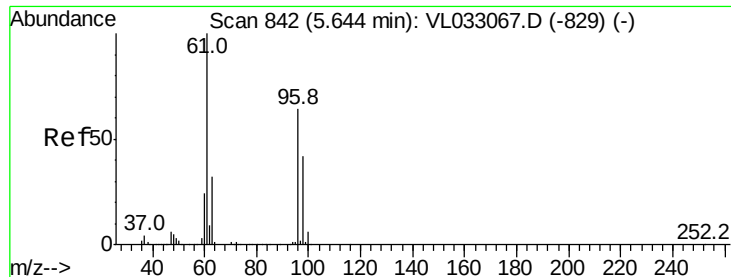


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 2.240 ppbv

RT: 5.63 min Scan# 839

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

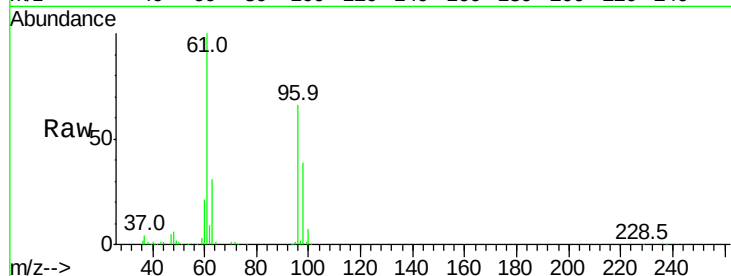
Tgt Ion: 61 Resp: 260689

Ion Ratio Lower Upper

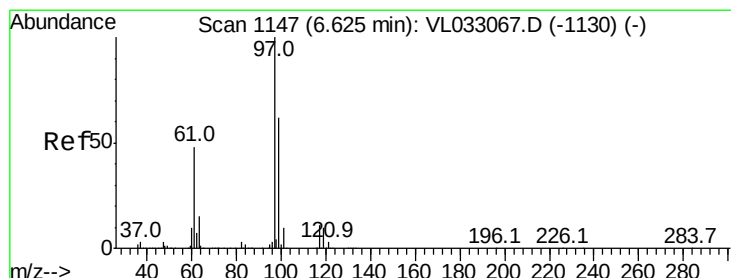
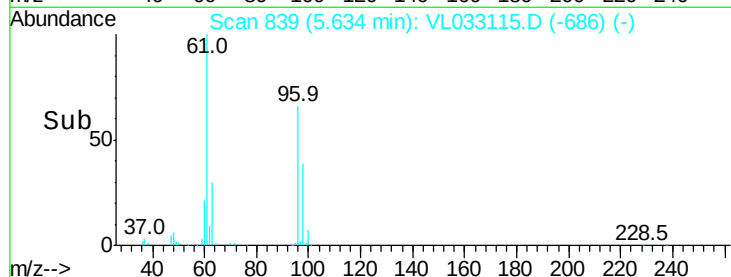
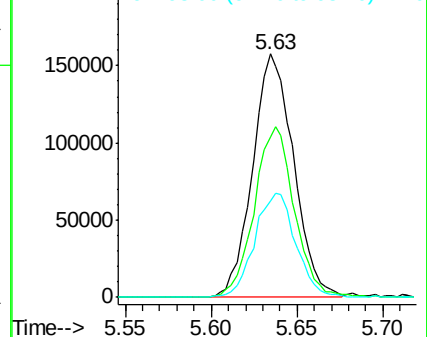
61 100

96 66.1 57.6 86.4

98 39.3 37.0 55.4



Abundance Ion 61.10 (60.80 to 61.80): VL0  
Ion 96.00 (95.70 to 96.70): VL0  
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 2.219 ppbv

RT: 6.61 min Scan# 1144

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

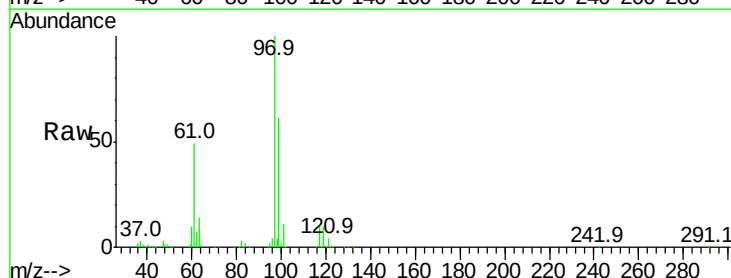
Tgt Ion: 97 Resp: 481102

Ion Ratio Lower Upper

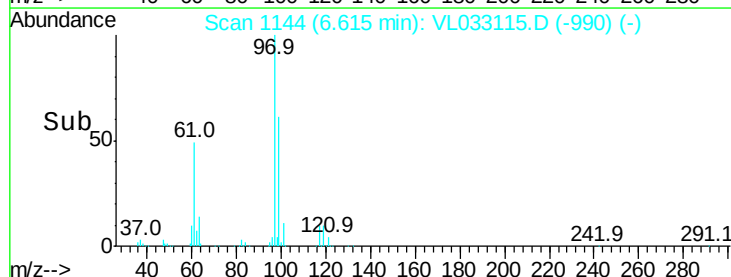
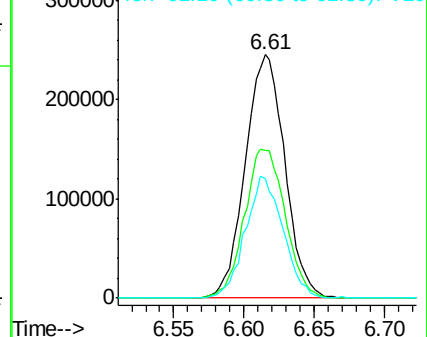
97 100

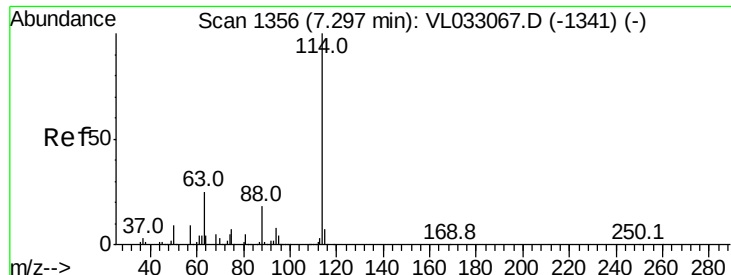
99 63.3 51.7 77.5

61 47.9 38.6 57.8



Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0

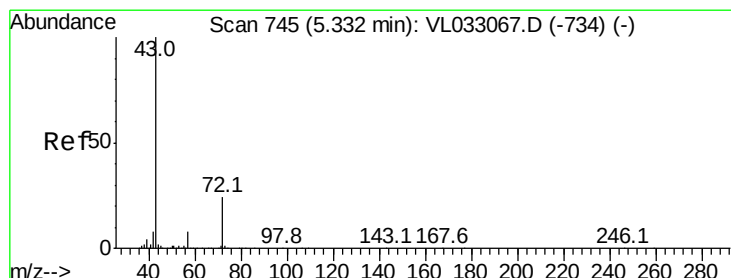
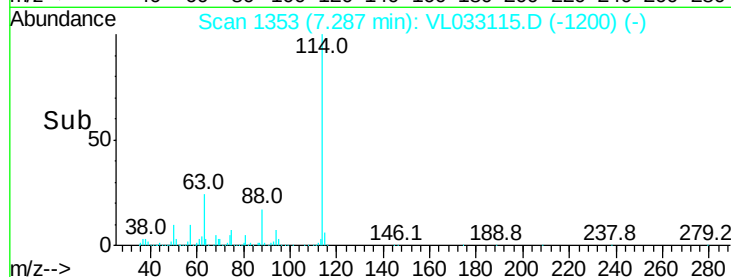
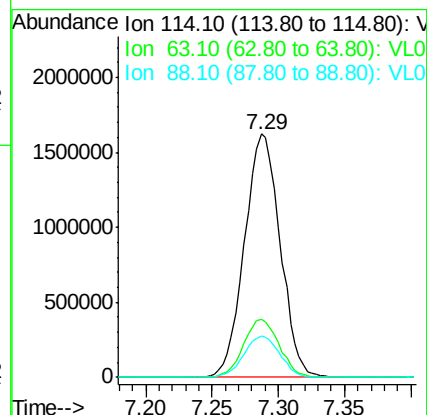
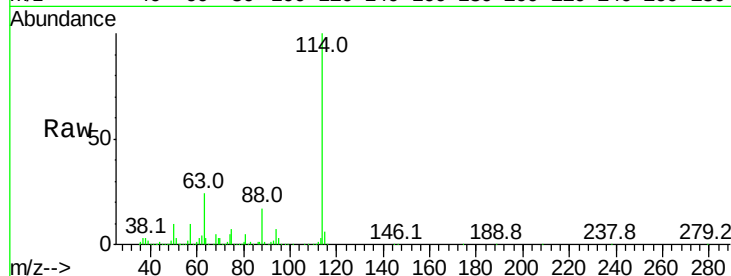




#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1353  
 Delta R.T. -0.01 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

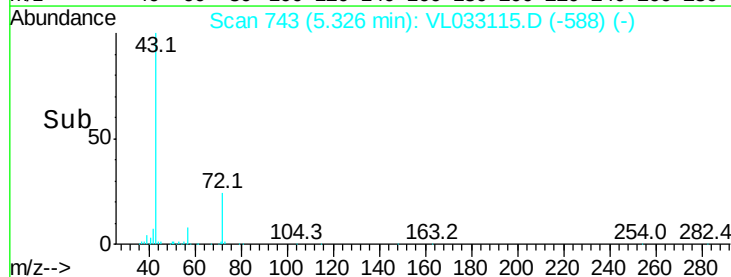
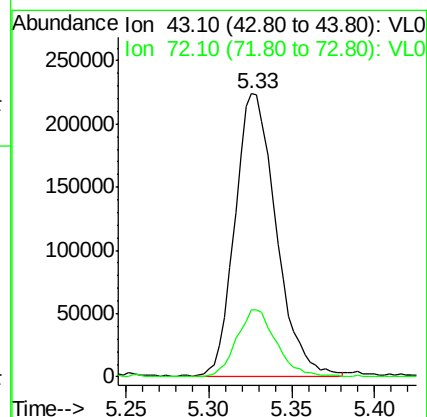
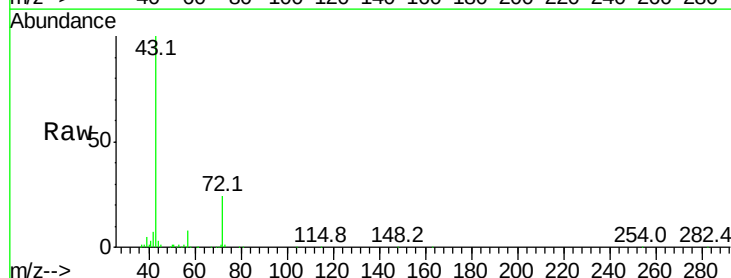
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

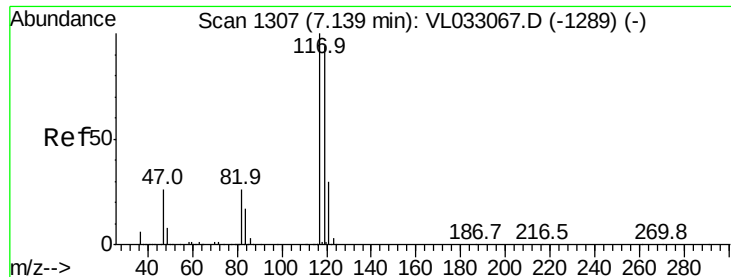
Tgt Ion:114 Resp: 3034163  
 Ion Ratio Lower Upper  
 114 100  
 63 24.0 19.8 29.8  
 88 17.2 14.2 21.2



#34  
 2-Butanone  
 Concen: 2.182 ppbv  
 RT: 5.33 min Scan# 743  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

Tgt Ion: 43 Resp: 384594  
 Ion Ratio Lower Upper  
 43 100  
 72 23.4 18.7 28.1





#35

Carbon Tetrachloride

Concen: 2.040 ppbv

RT: 7.13 min Scan# 1304

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

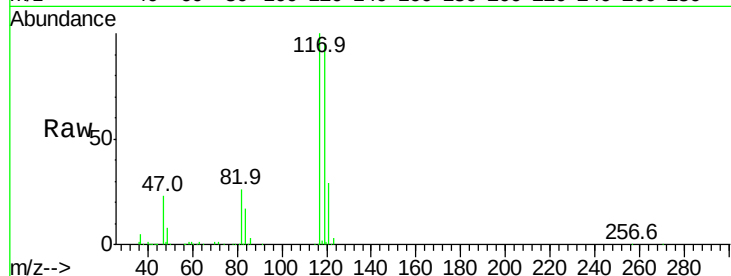
Tgt Ion:117 Resp: 531729

Ion Ratio Lower Upper

117 100

119 94.6 75.8 113.6

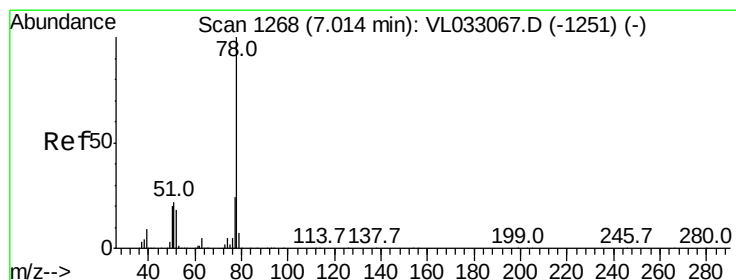
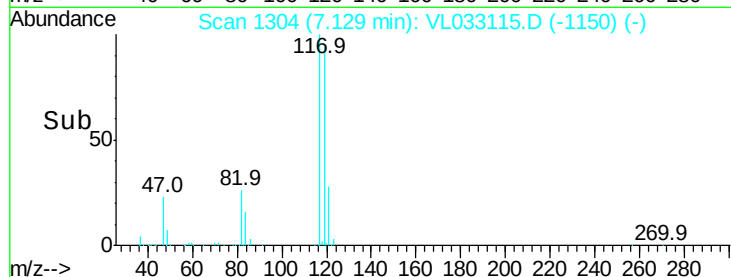
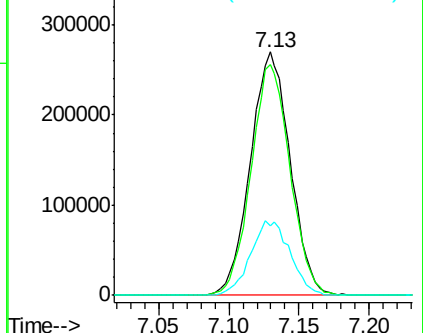
121 28.5 24.6 36.8



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 2.233 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

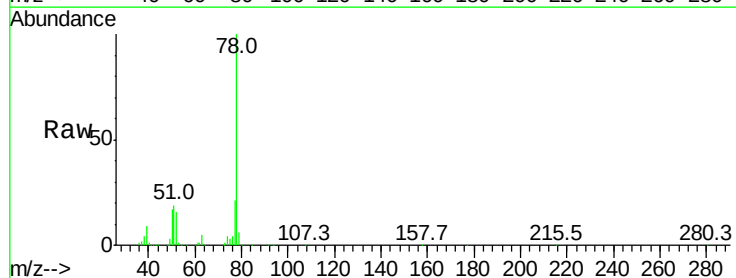
Tgt Ion: 78 Resp: 554876

Ion Ratio Lower Upper

78 100

77 20.6 18.5 27.7

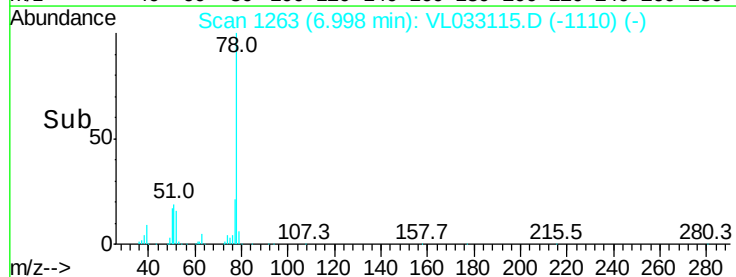
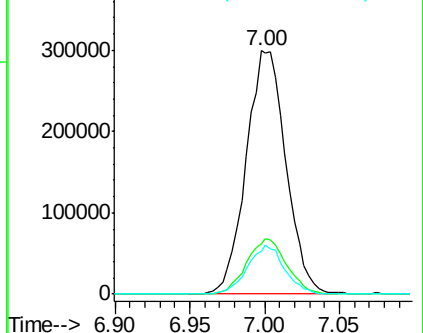
50 17.4 15.4 23.2

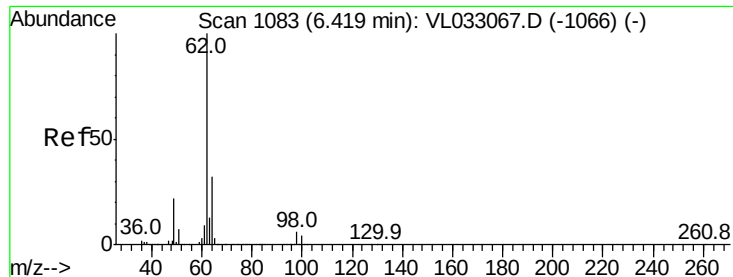


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#37

1,2-Dichloroethane

Concen: 2.016 ppbv

RT: 6.41 min Scan# 1080

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

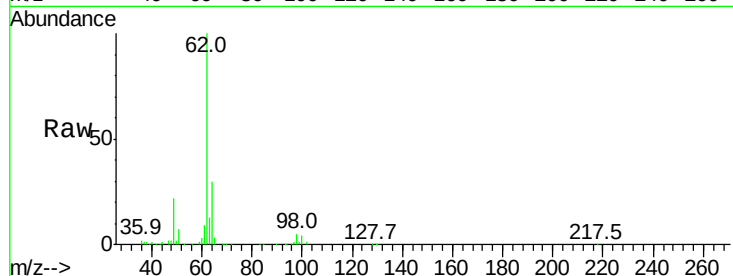
VSTDIC002

Tgt Ion: 62 Resp: 349881

Ion Ratio Lower Upper

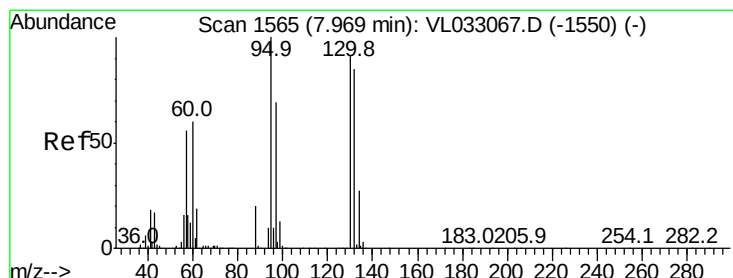
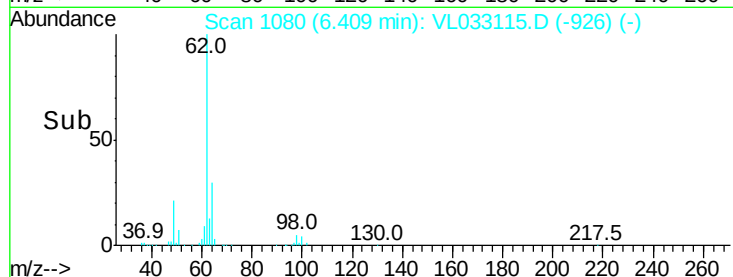
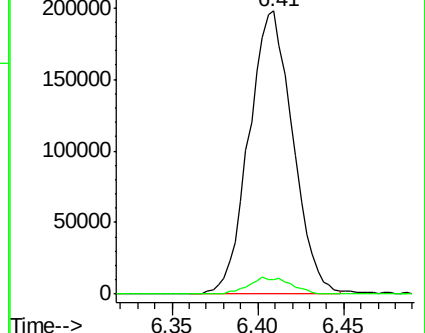
62 100

98 5.8 4.6 7.0



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#38

Trichloroethene

Concen: 2.242 ppbv

RT: 7.95 min Scan# 1560

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Tgt Ion: 130 Resp: 229263

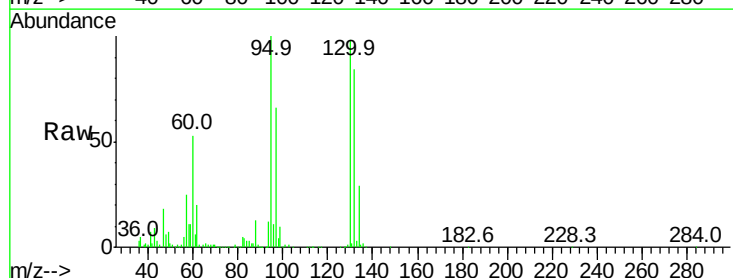
Ion Ratio Lower Upper

130 100

95 102.5 94.0 141.0

132 86.2 79.7 119.5

97 68.0 58.4 87.6

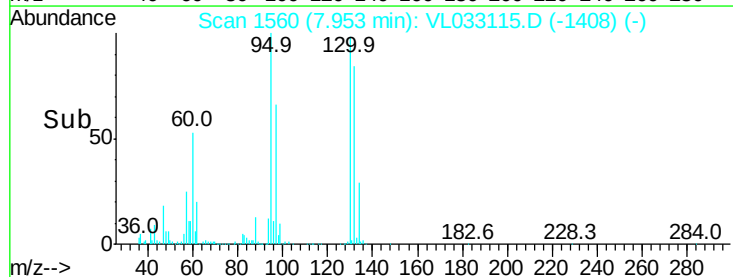
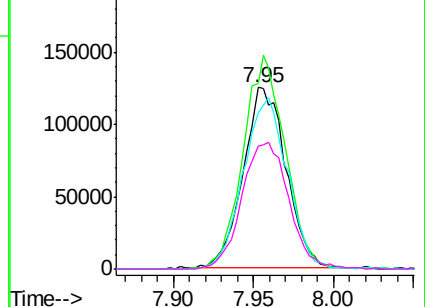


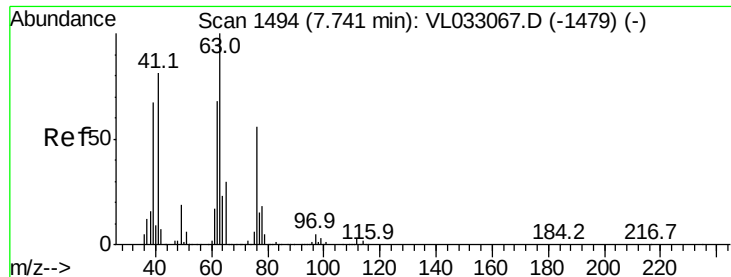
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

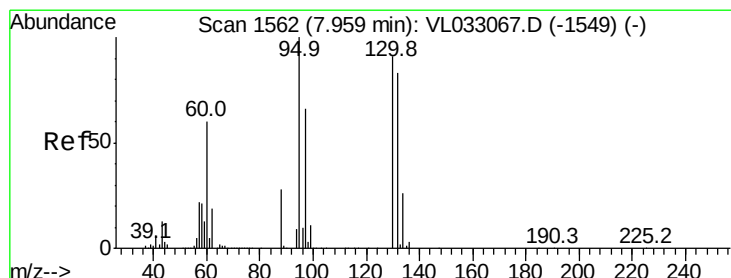
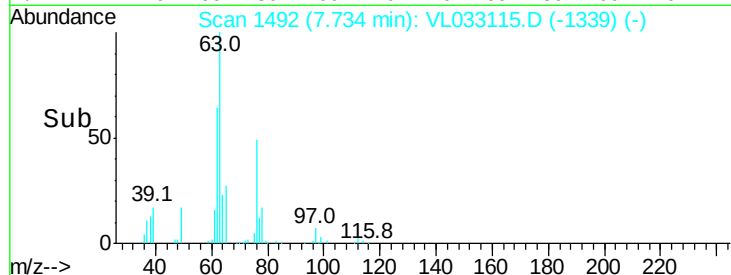
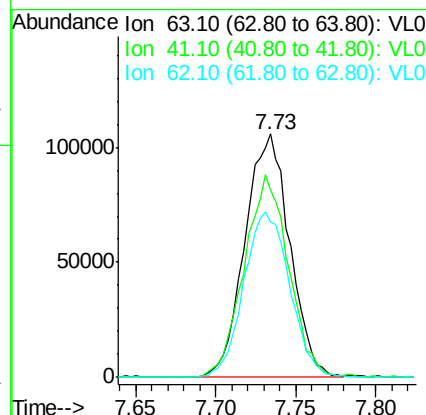
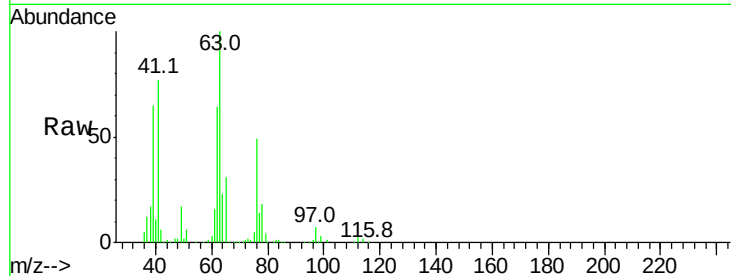




#39  
 1,2-Dichloropropane  
 Concen: 2.150 ppbv  
 RT: 7.73 min Scan# 1492  
 Delta R.T. -0.01 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

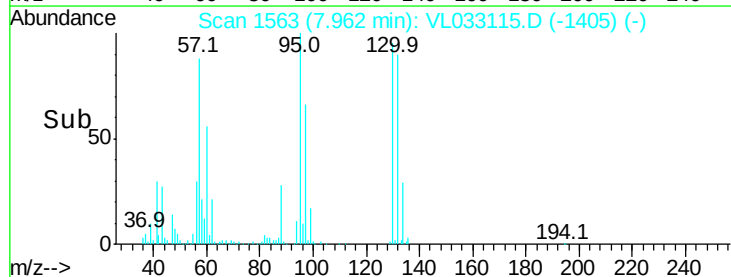
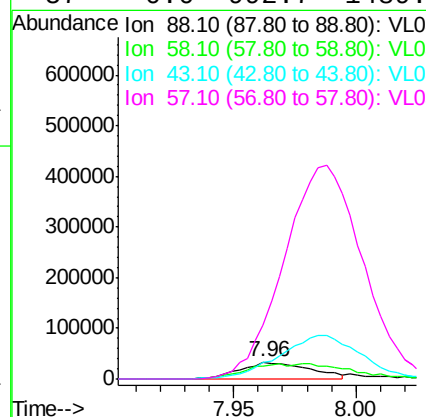
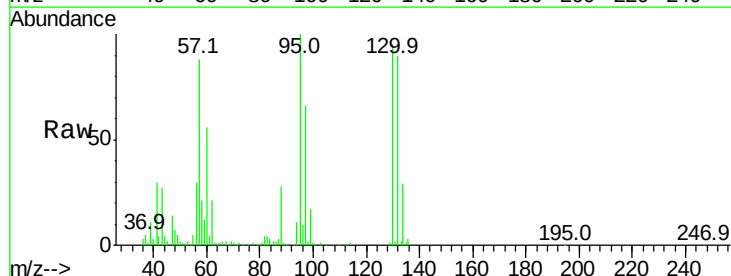
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

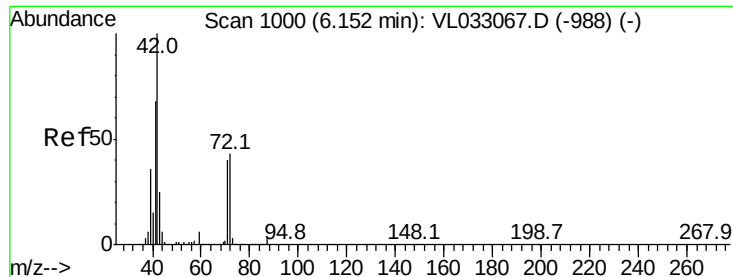
Tgt Ion: 63 Resp: 200789  
 Ion Ratio Lower Upper  
 63 100  
 41 77.4 57.8 86.8  
 62 63.9 54.6 82.0



#40  
 1,4-Dioxane  
 Concen: 1.826 ppbv  
 RT: 7.96 min Scan# 1563  
 Delta R.T. 0.01 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

Tgt Ion: 88 Resp: 64711  
 Ion Ratio Lower Upper  
 88 100  
 58 0.0 103.5 155.3#  
 43 0.0 217.8 326.8#  
 57 0.0 992.7 1489.1#





#41

Tetrahydrofuran

Concen: 2.189 ppbv

RT: 6.15 min Scan# 999

Delta R.T. 0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

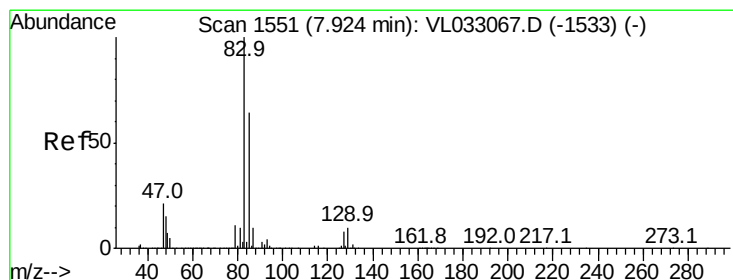
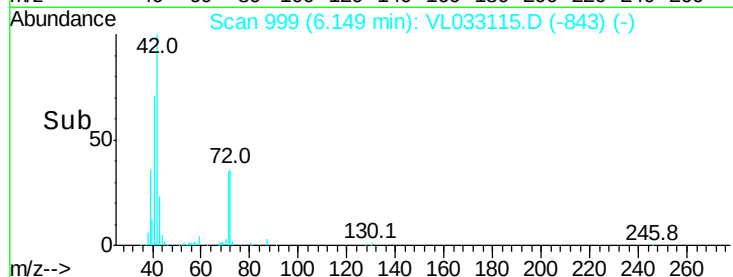
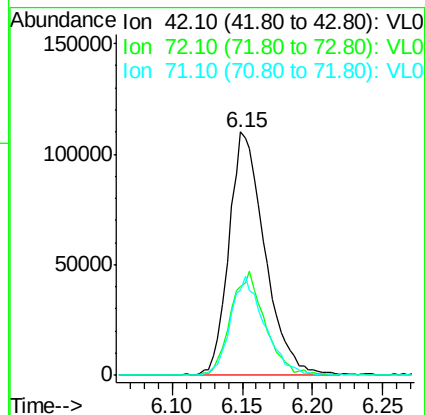
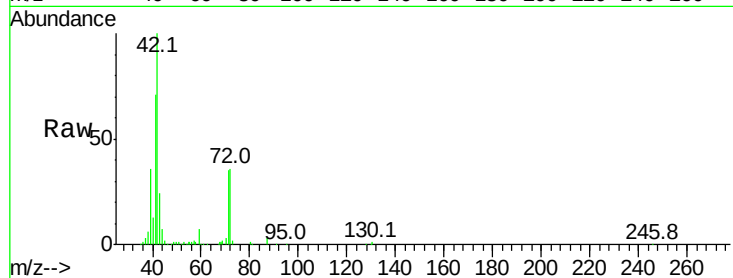
Tgt Ion: 42 Resp: 196428

Ion Ratio Lower Upper

42 100

72 41.2 33.8 50.8

71 39.0 31.6 47.4



#42

Bromodichloromethane

Concen: 2.123 ppbv

RT: 7.91 min Scan# 1548

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

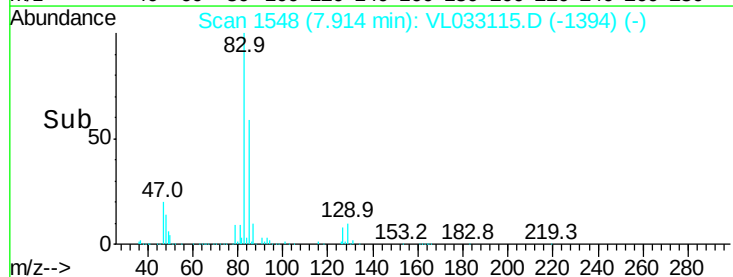
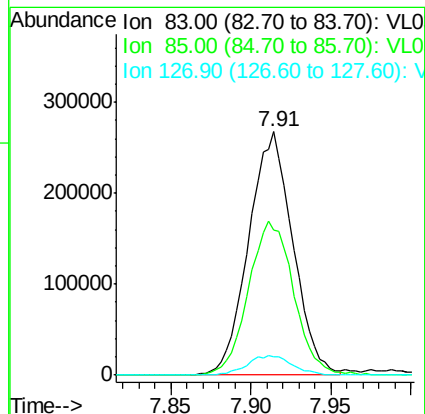
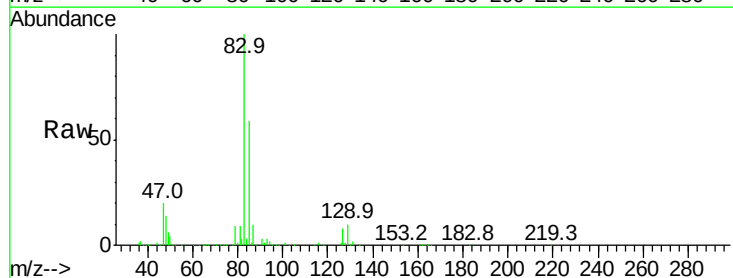
Tgt Ion: 83 Resp: 506034

Ion Ratio Lower Upper

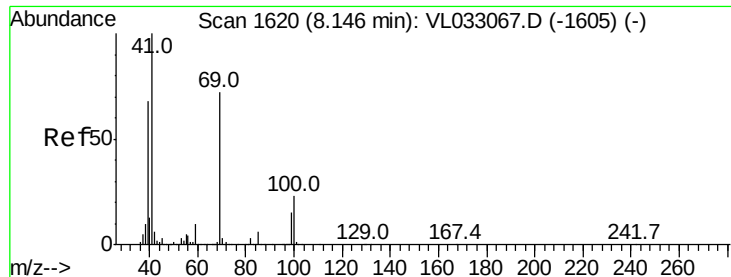
83 100

85 59.5 52.9 79.3

127 7.6 6.7 10.1







#43

Methyl Methacrylate

Concen: 2.230 ppbv

RT: 8.14 min Scan# 1617

Delta R.T. 0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

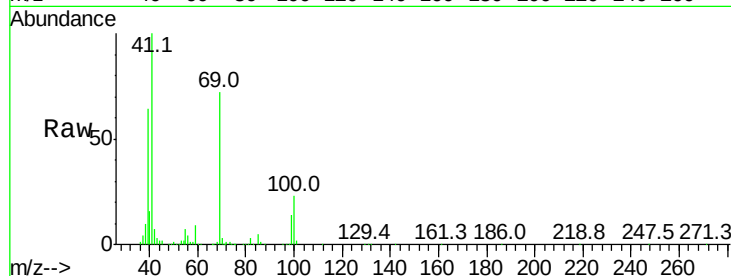
Tgt Ion: 69 Resp: 207972

Ion Ratio Lower Upper

69 100

41 142.4 113.9 170.9

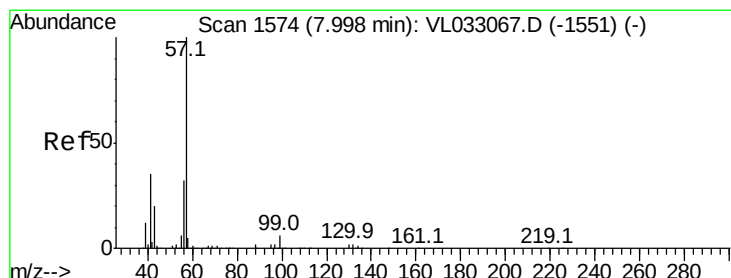
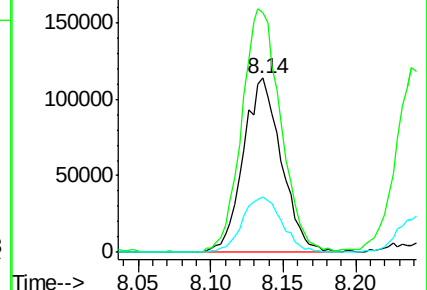
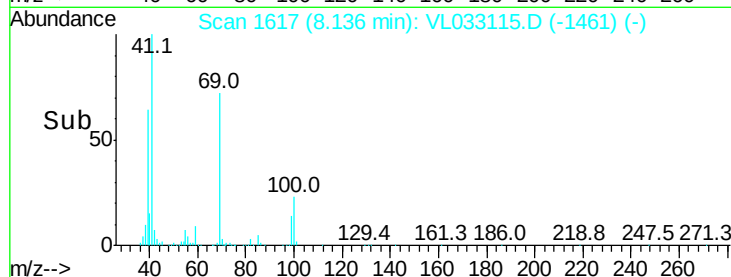
100 33.2 26.2 39.4



Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 2.254 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

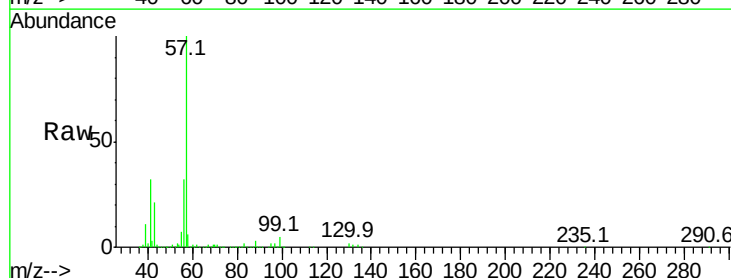
Tgt Ion: 57 Resp: 948641

Ion Ratio Lower Upper

57 100

41 33.1 26.1 39.1

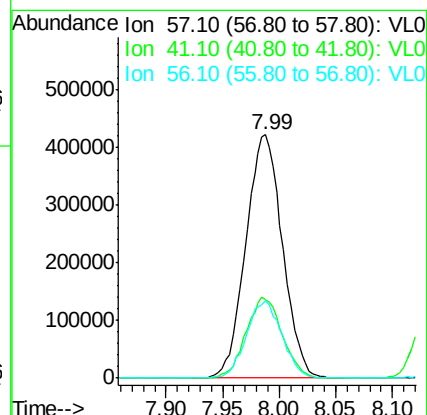
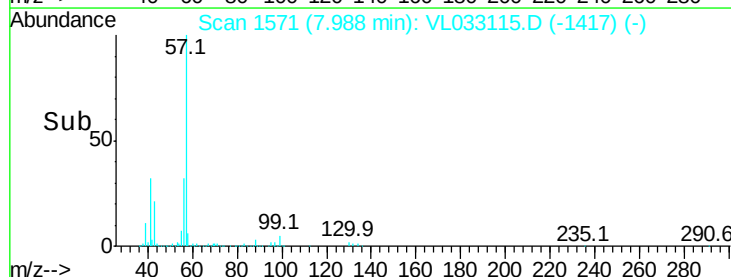
56 30.9 25.0 37.4

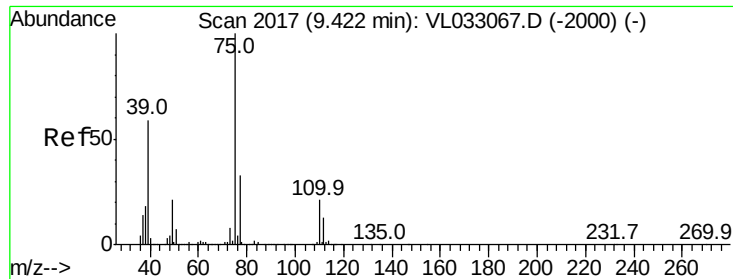


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#45

t-1,3-Dichloropropene

Concen: 2.121 ppbv

RT: 9.41 min Scan# 2014

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

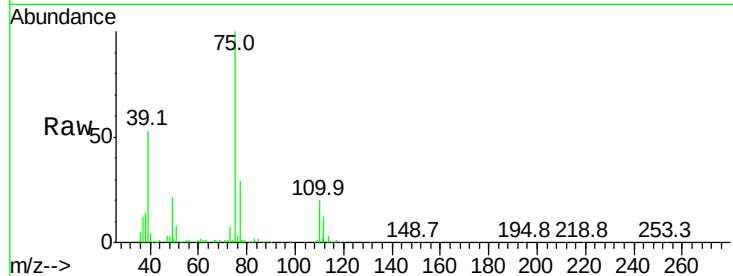
VSTDIC002

Tgt Ion: 75 Resp: 246275

Ion Ratio Lower Upper

75 100

77 29.4 24.9 37.3



Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

9.41

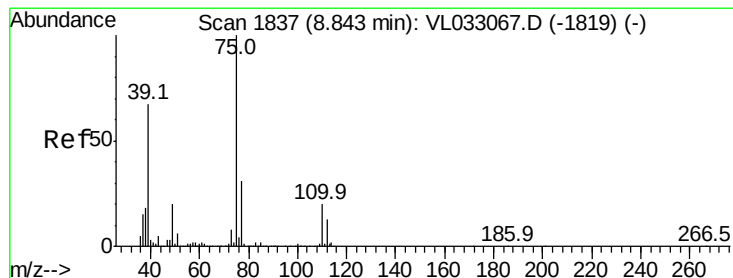
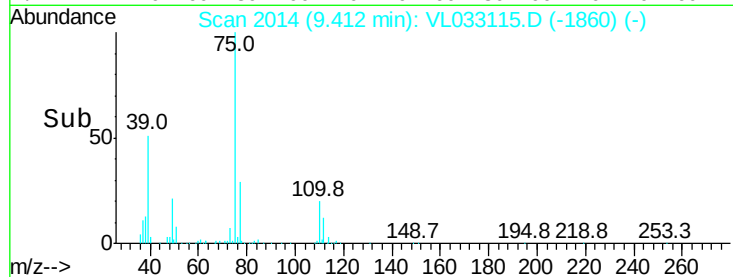
150000

100000

50000

0

Time--> 9.35 9.40 9.45 9.50



#46

cis-1,3-Dichloropropene

Concen: 2.267 ppbv

RT: 8.83 min Scan# 1834

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

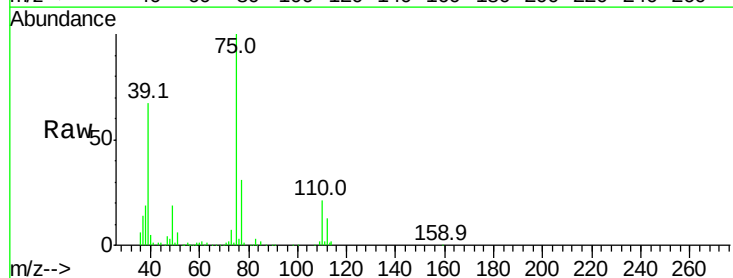
Tgt Ion: 75 Resp: 300342

Ion Ratio Lower Upper

75 100

39 66.6 52.0 78.0

77 31.0 25.5 38.3



Abundance Ion 75.00 (74.70 to 75.70): VL0

Ion 39.00 (38.70 to 39.70): VL0

Ion 77.00 (76.70 to 77.70): VL0

8.83

200000

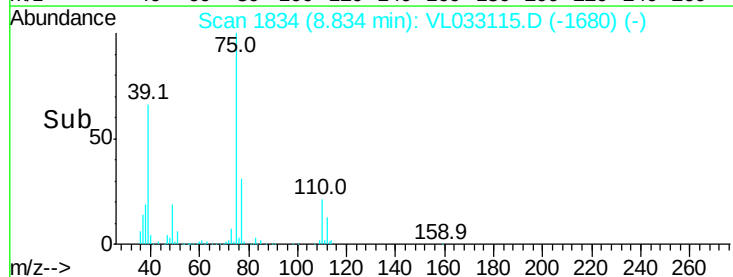
150000

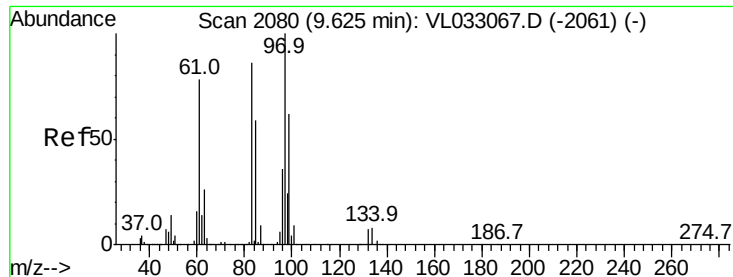
100000

50000

0

Time--> 8.75 8.80 8.85 8.90

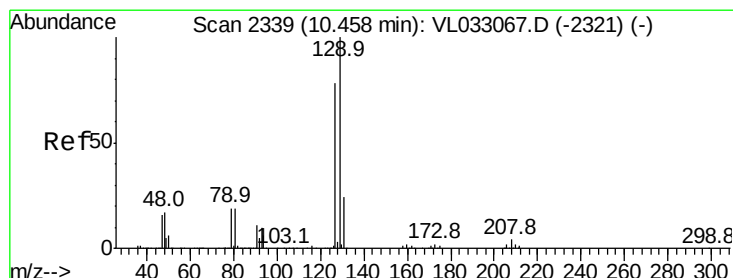
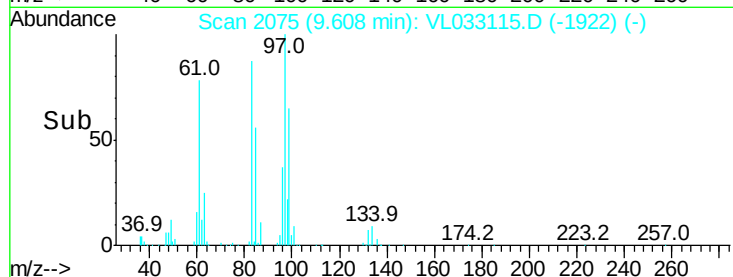
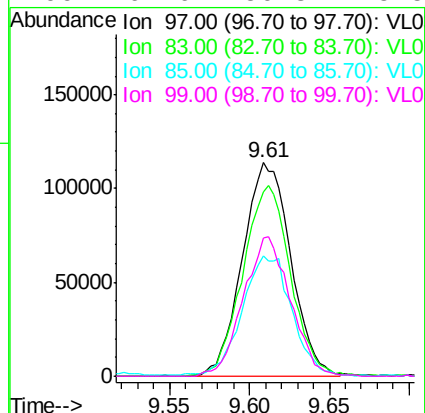
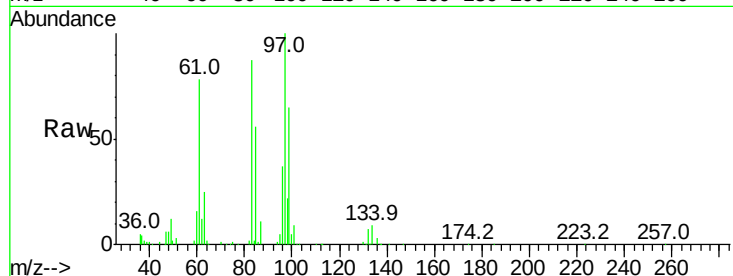




#47  
 1,1,2-Trichloroethane  
 Concen: 2.150 ppbv  
 RT: 9.61 min Scan# 2075  
 Delta R.T. -0.01 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

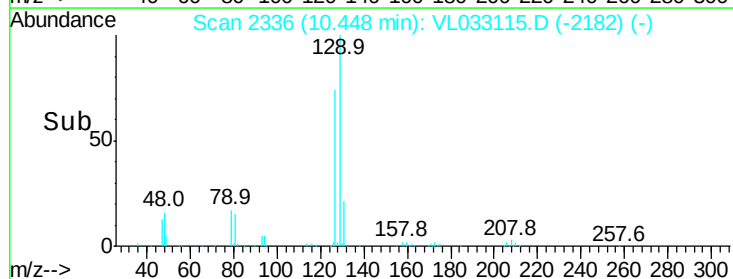
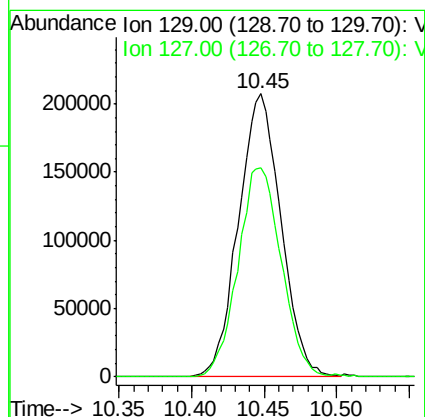
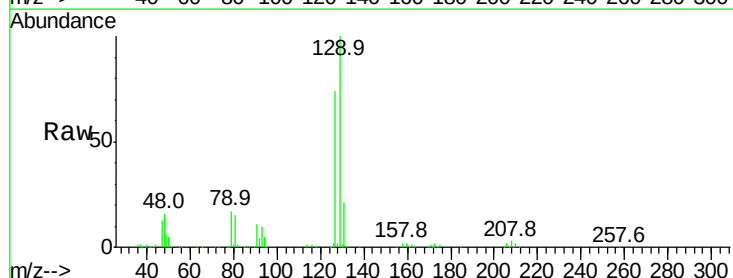
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

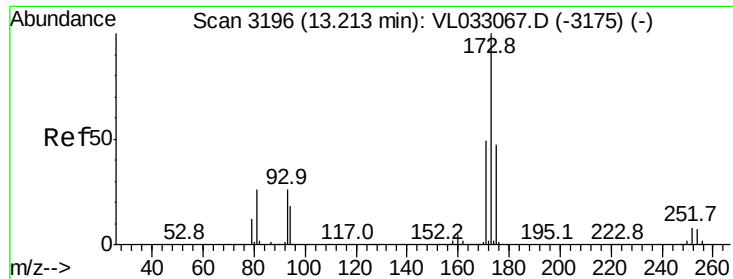
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 234512 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 86.1  | 71.4  | 107.2  |
| 85       | 55.7  | 47.2  | 70.8   |
| 99       | 64.6  | 50.3  | 75.5   |



#48  
 Dibromochloromethane  
 Concen: 2.187 ppbv  
 RT: 10.45 min Scan# 2336  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 421524 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 76.2  | 39.3  | 117.9  |





#49

Bromoform

Concen: 1.103 ppbv

RT: 13.19 min Scan# 3190

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

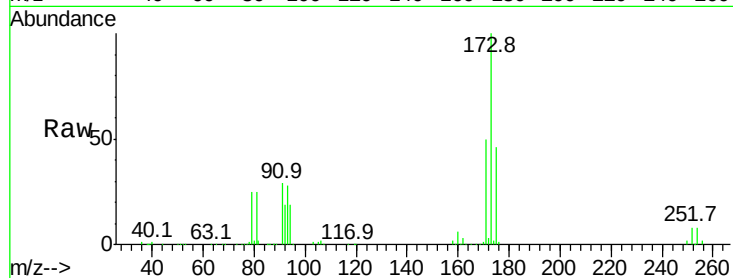
Tgt Ion:173 Resp: 185746

Ion Ratio Lower Upper

173 100

175 0.0 38.9 58.3#

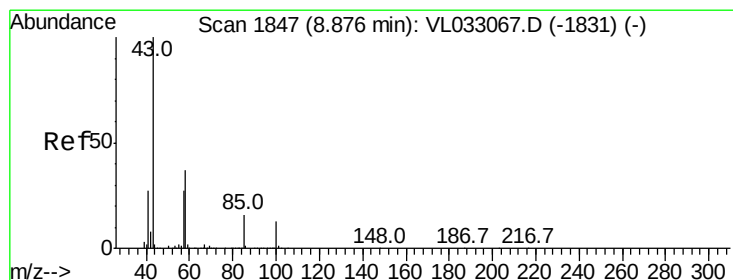
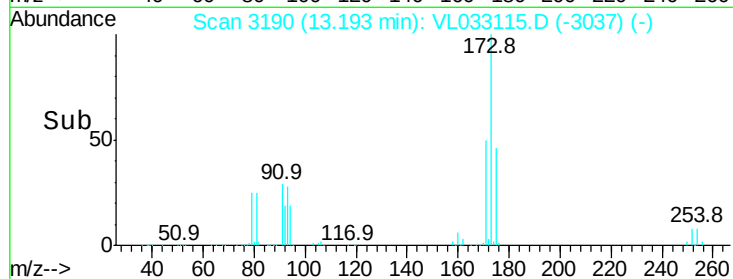
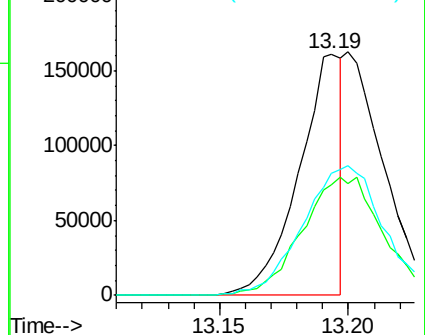
171 0.0 41.8 62.6#



Abundance Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 2.333 ppbv

RT: 8.87 min Scan# 1845

Delta R.T. -0.00 min

Lab File: VL033115.D

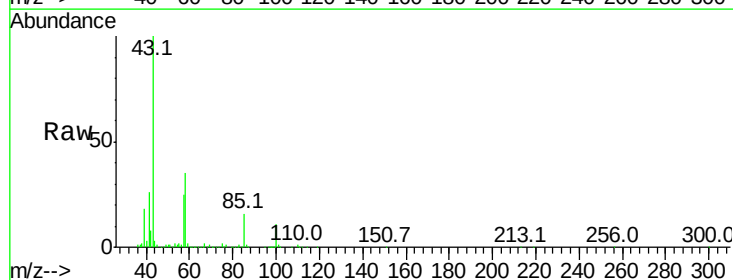
Acq: 28 Jan 2019 16:22

Tgt Ion: 43 Resp: 521162

Ion Ratio Lower Upper

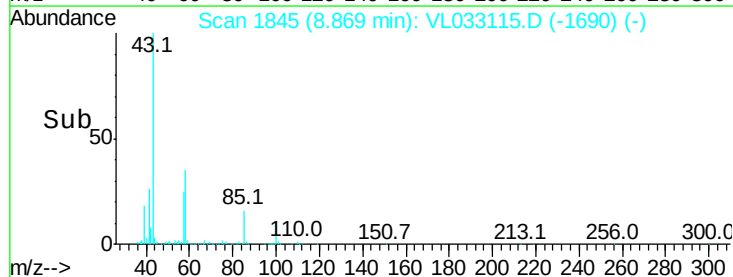
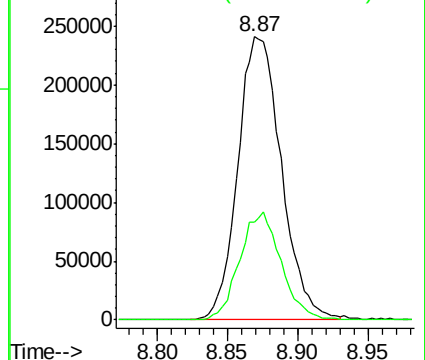
43 100

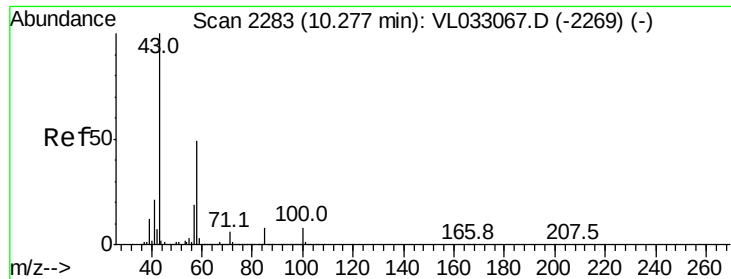
58 36.2 29.4 44.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

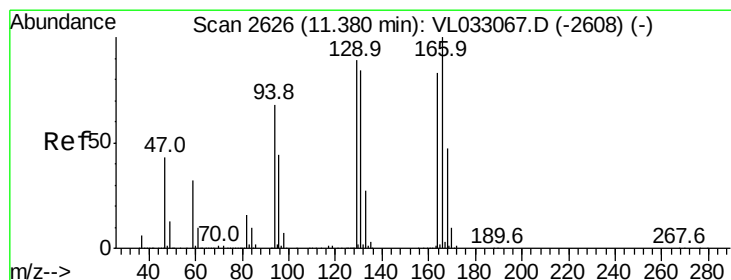
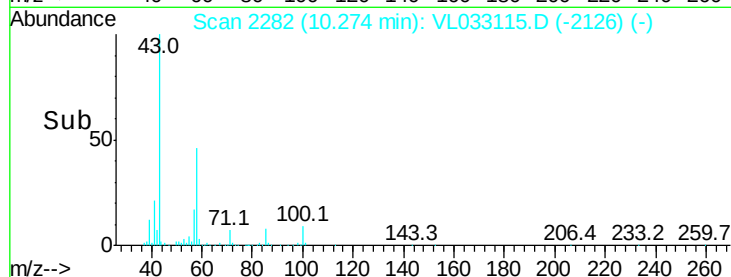
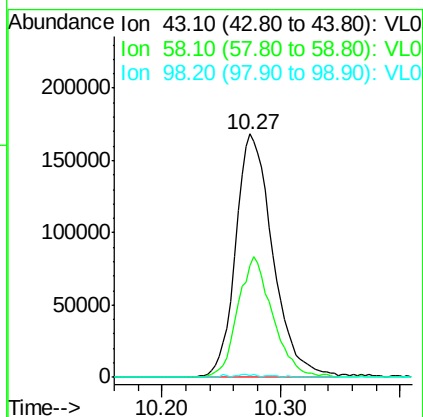
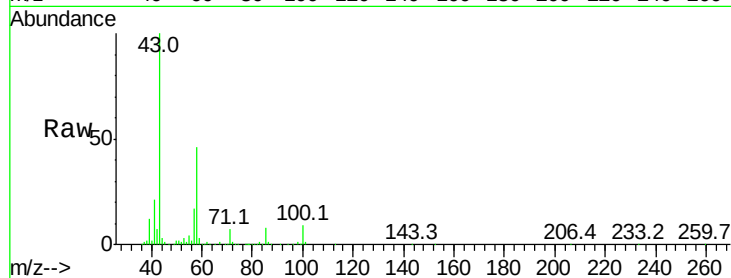




#51  
2-Hexanone  
Concen: 2.253 ppbv  
RT: 10.27 min Scan# 2282  
Delta R.T. 0.00 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

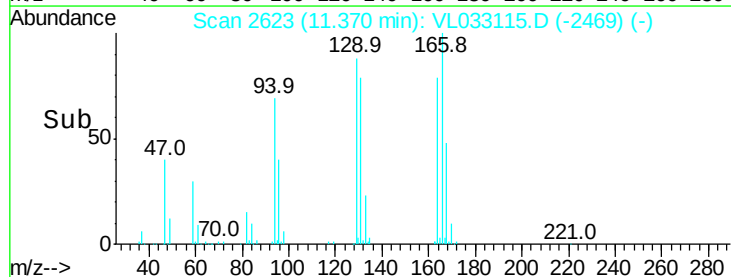
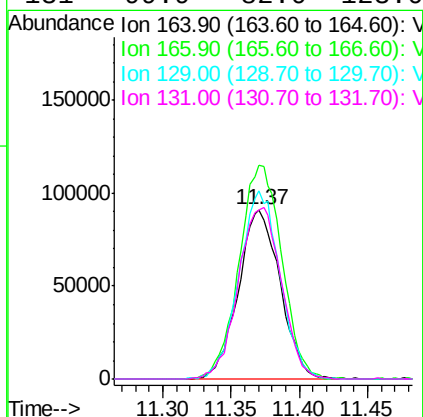
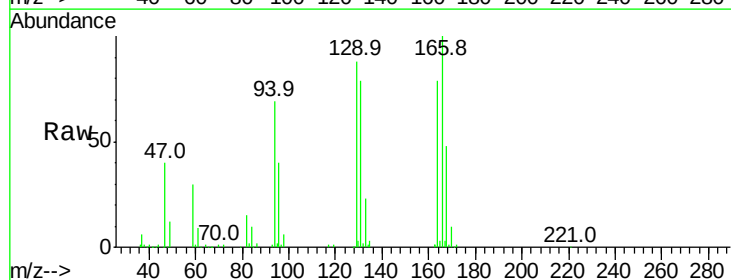
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

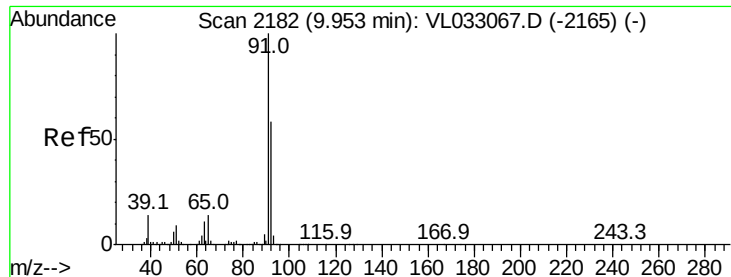
Tgt Ion: 43 Resp: 364161  
Ion Ratio Lower Upper  
43 100  
58 47.0 39.5 59.3  
98 0.8 0.3 0.5#



#52  
Tetrachloroethene  
Concen: 2.203 ppbv  
RT: 11.37 min Scan# 2623  
Delta R.T. -0.00 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

Tgt Ion: 164 Resp: 193510  
Ion Ratio Lower Upper  
164 100  
166 125.9 101.3 151.9  
129 110.8 83.3 124.9  
131 99.9 82.0 123.0





#53

Toluene

Concen: 2.281 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

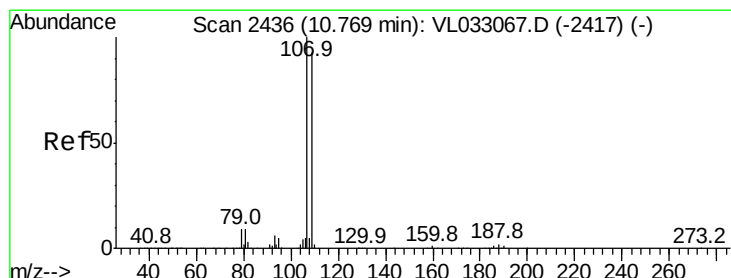
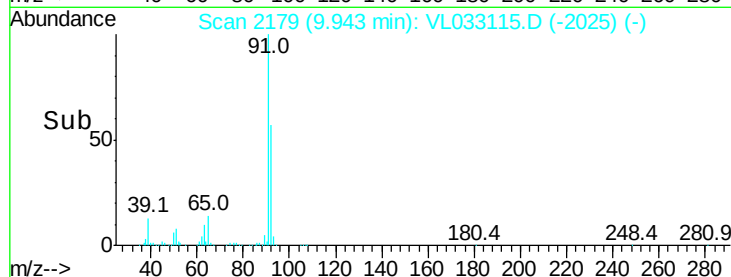
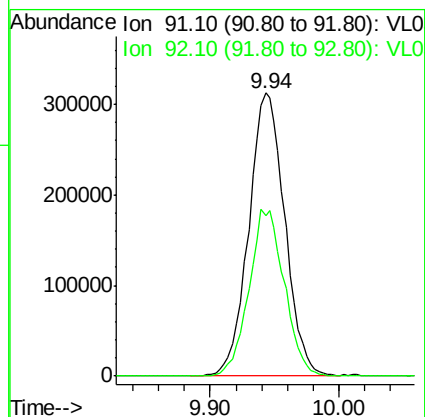
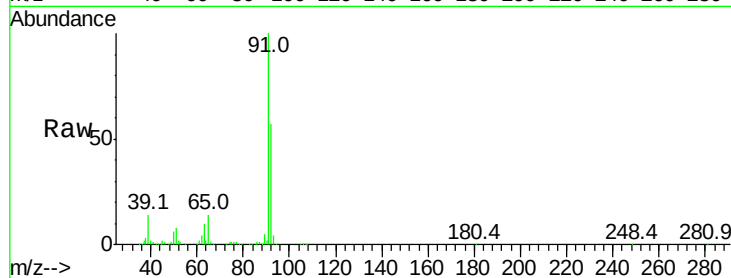
VSTDIC002

Tgt Ion: 91 Resp: 607452

Ion Ratio Lower Upper

91 100

92 58.2 47.9 71.9



#54

1,2-Dibromoethane

Concen: 2.140 ppbv

RT: 10.76 min Scan# 2433

Delta R.T. -0.00 min

Lab File: VL033115.D

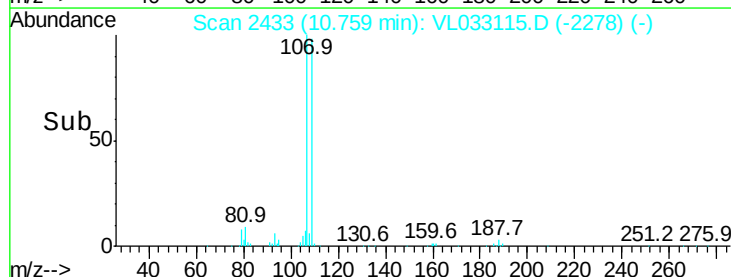
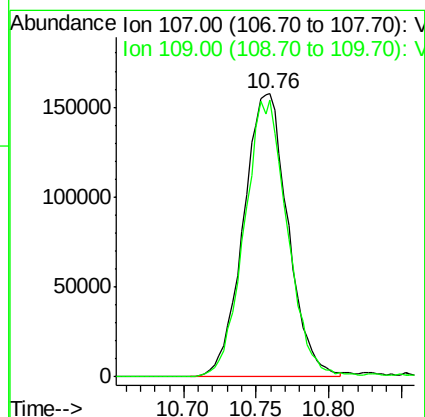
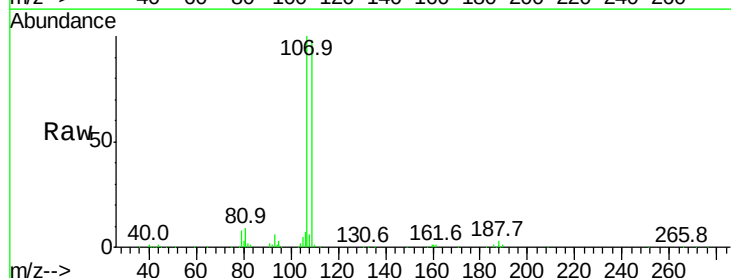
Acq: 28 Jan 2019 16:22

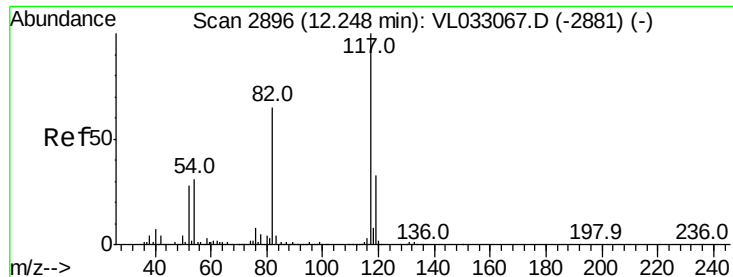
Tgt Ion: 107 Resp: 336294

Ion Ratio Lower Upper

107 100

109 97.9 75.8 113.6

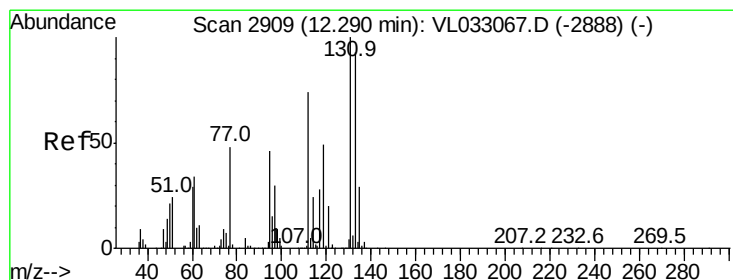
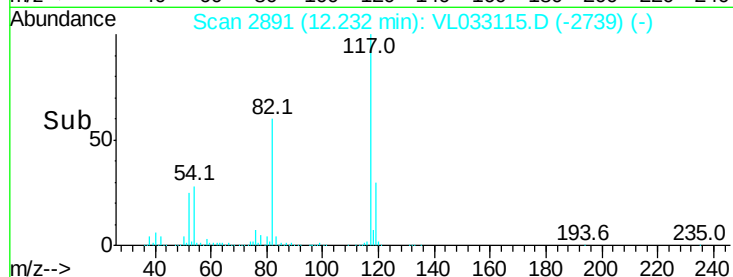
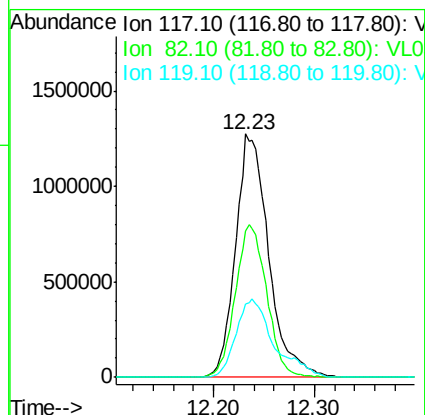
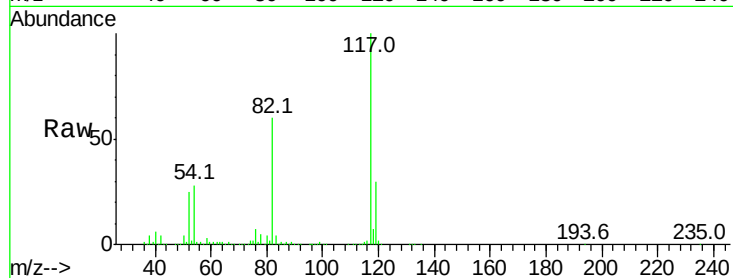




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.23 min Scan# 2891  
Delta R.T. -0.01 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

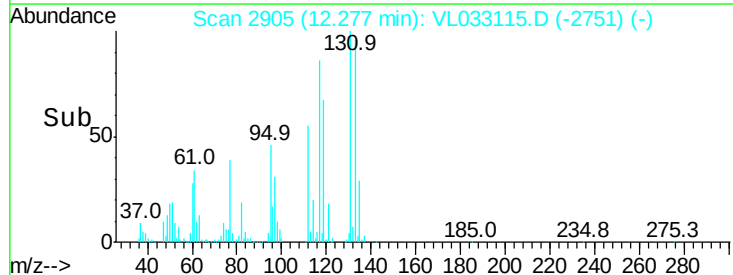
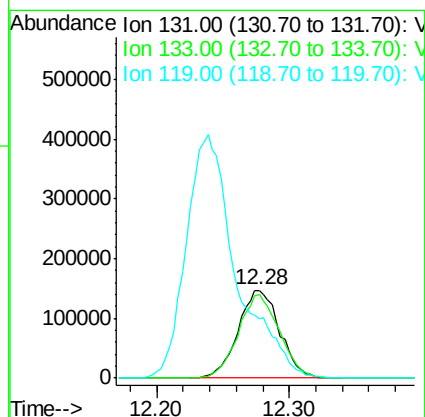
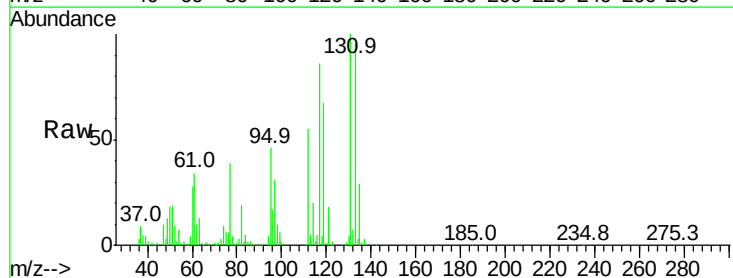
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

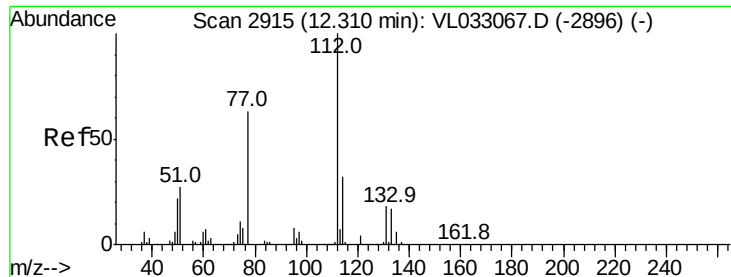
Tgt Ion:117 Resp: 2906497  
Ion Ratio Lower Upper  
117 100  
82 59.7 48.3 72.5  
119 36.8 25.9 38.9



#56  
1,1,1,2-Tetrachloroethane  
Concen: 2.130 ppbv  
RT: 12.28 min Scan# 2905  
Delta R.T. -0.00 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

Tgt Ion:131 Resp: 319912  
Ion Ratio Lower Upper  
131 100  
133 95.0 76.6 115.0  
119 335.1 44.6 66.8#





#57

Chlorobenzene

Concen: 2.102 ppbv

RT: 12.30 min Scan# 2911

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

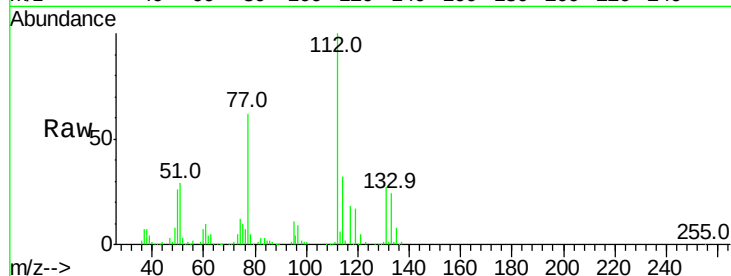
Tgt Ion: 112 Resp: 509830

Ion Ratio Lower Upper

112 100

77 61.8 51.6 77.4

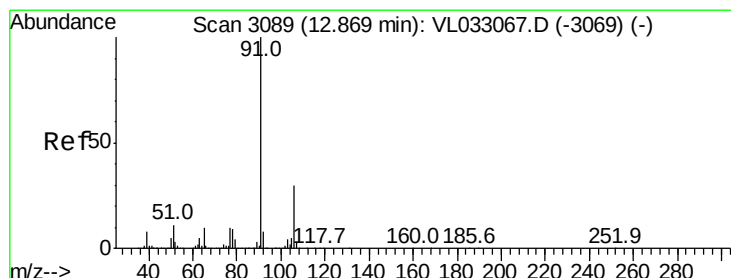
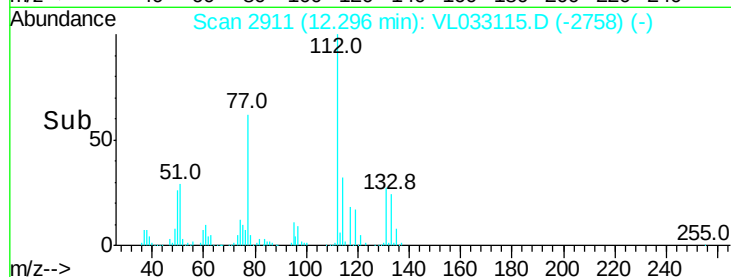
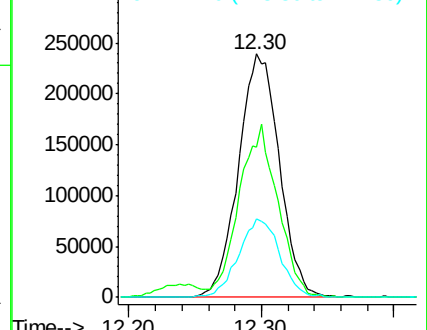
114 32.4 27.9 34.1



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 2.226 ppbv

RT: 12.86 min Scan# 3086

Delta R.T. -0.00 min

Lab File: VL033115.D

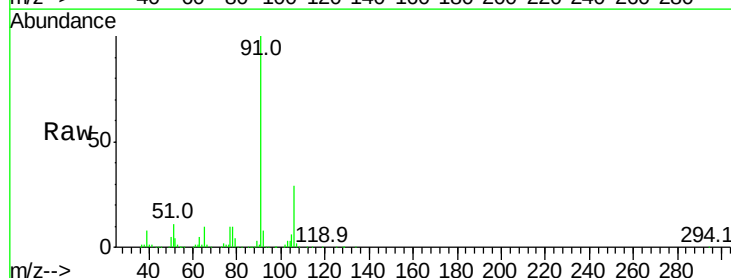
Acq: 28 Jan 2019 16:22

Tgt Ion: 91 Resp: 816925

Ion Ratio Lower Upper

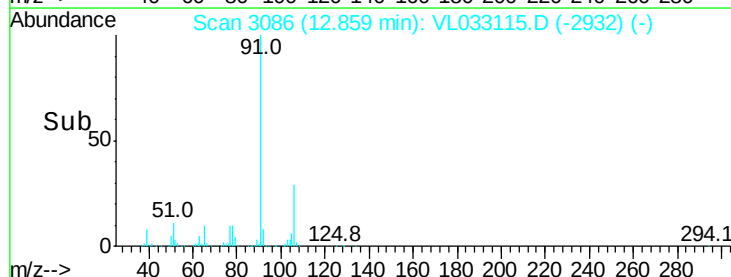
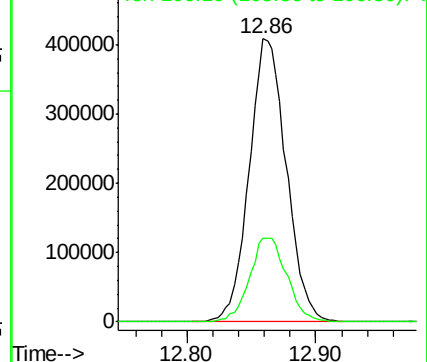
91 100

106 29.4 24.4 36.6

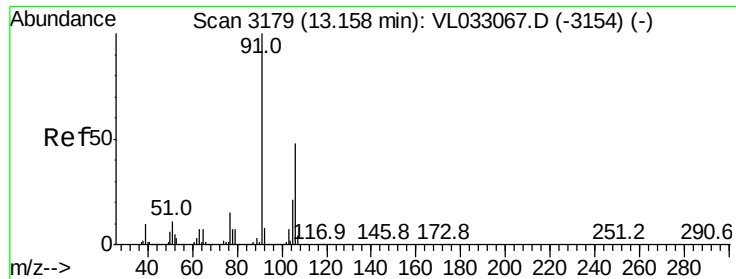


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



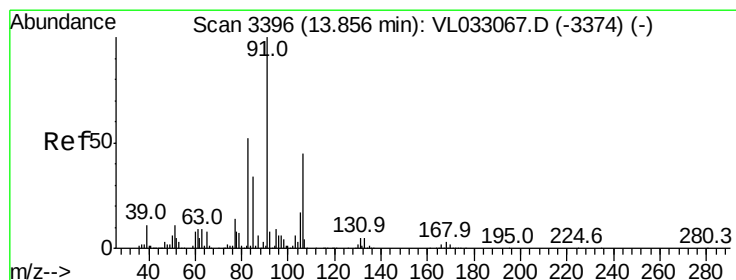
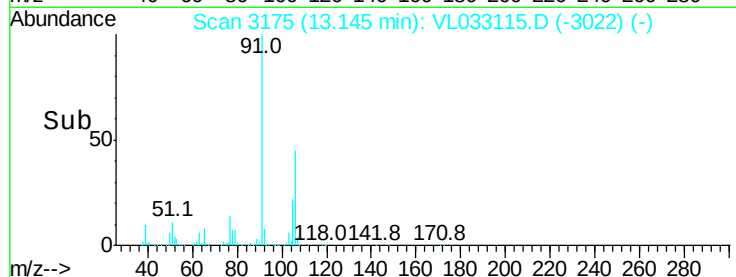
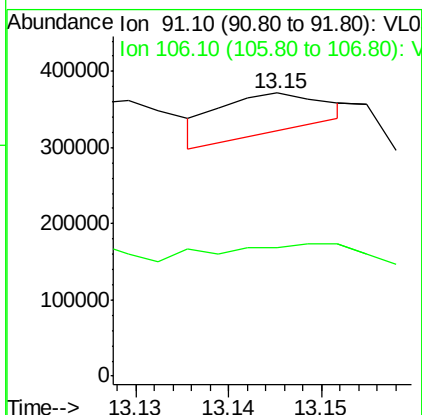
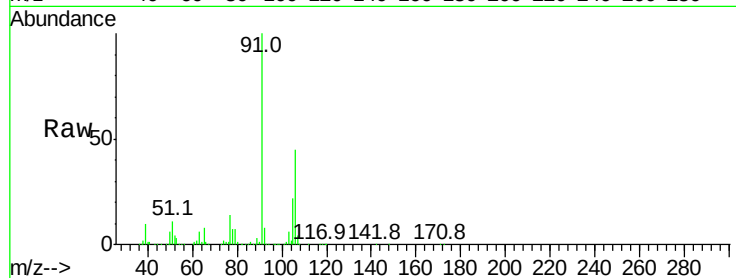




#59  
m/p-Xylene  
Concen: 0.128 ppbv  
RT: 13.15 min Scan# 3175  
Delta R.T. -0.01 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

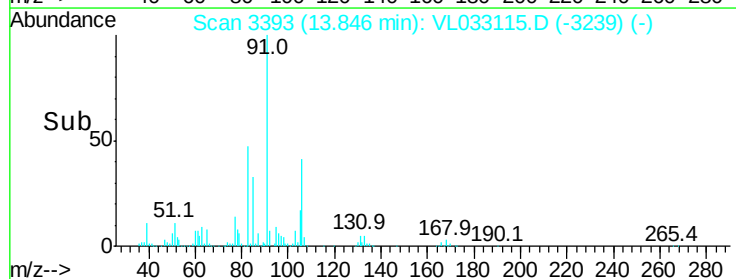
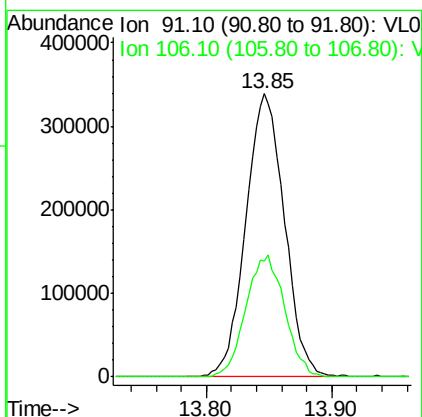
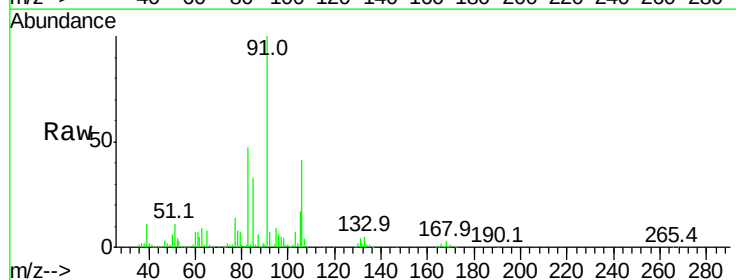
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

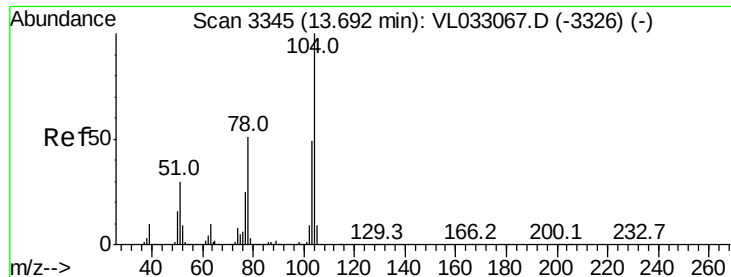
Tgt Ion: 91 Resp: 43340  
Ion Ratio Lower Upper  
91 100  
106 0.0 0.0 0.0



#60  
o-Xylene  
Concen: 2.180 ppbv  
RT: 13.85 min Scan# 3393  
Delta R.T. -0.00 min  
Lab File: VL033115.D  
Acq: 28 Jan 2019 16:22

Tgt Ion: 91 Resp: 724477  
Ion Ratio Lower Upper  
91 100  
106 43.3 22.6 67.8





#61

Styrene

Concen: 2.245 ppbv

RT: 13.68 min Scan# 3342

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

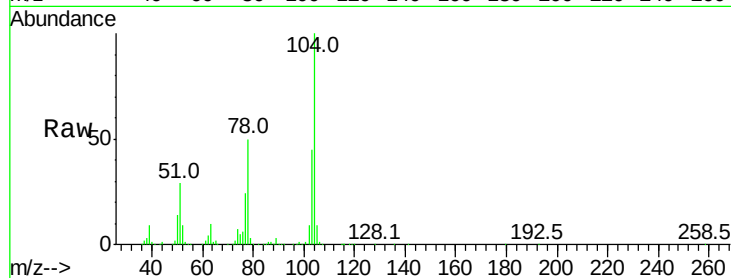
Tgt Ion:104 Resp: 476002

Ion Ratio Lower Upper

104 100

78 54.1 41.4 62.0

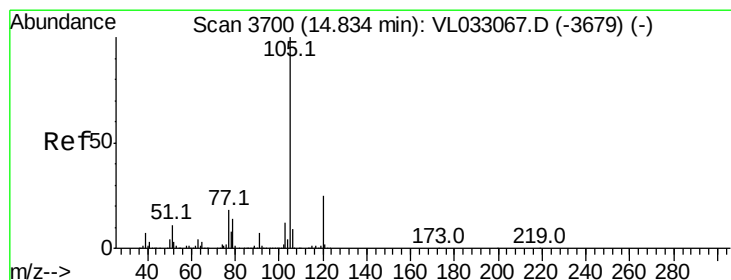
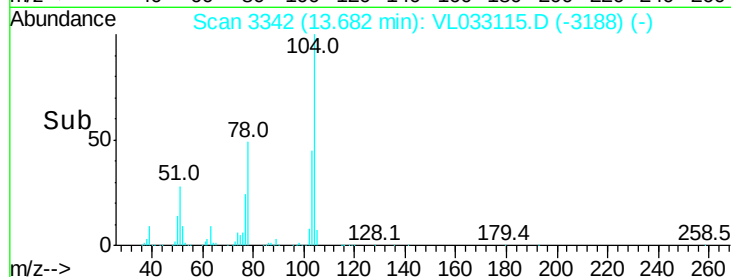
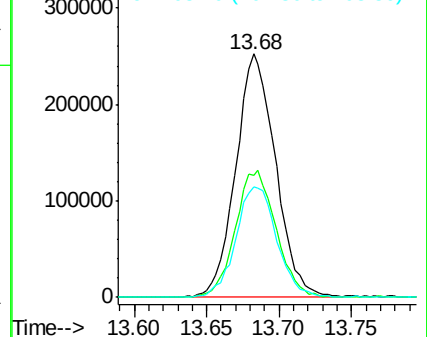
103 47.7 37.8 56.6



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 2.171 ppbv

RT: 14.83 min Scan# 3698

Delta R.T. -0.00 min

Lab File: VL033115.D

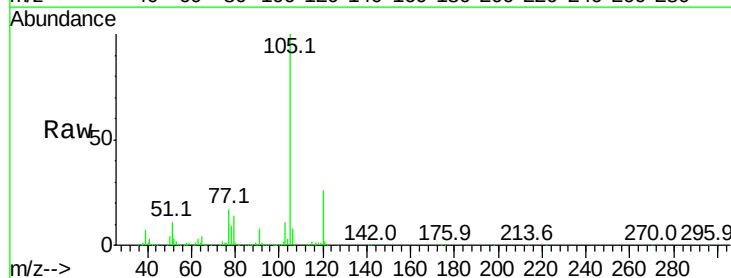
Acq: 28 Jan 2019 16:22

Tgt Ion:105 Resp: 1026995

Ion Ratio Lower Upper

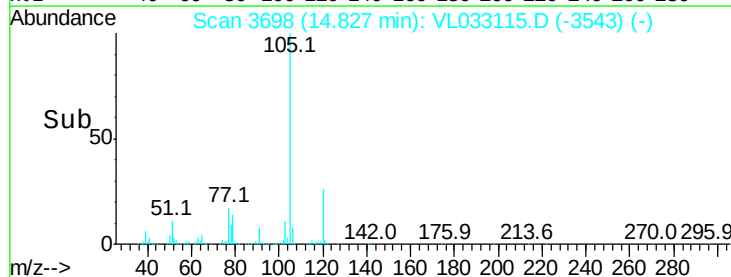
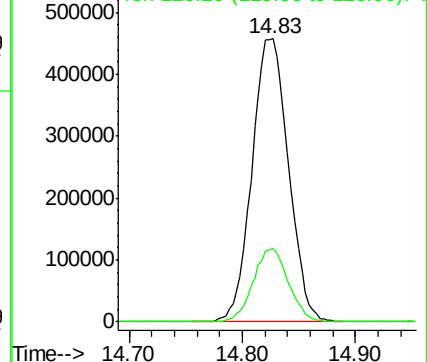
105 100

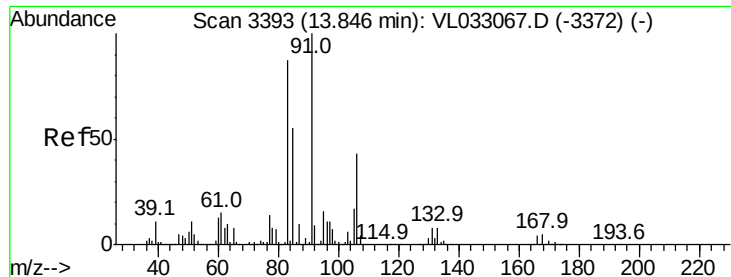
120 25.1 20.4 30.6



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#63

1,1,2,2-Tetrachloroethane

Concen: 2.106 ppbv

RT: 13.83 min Scan# 3389

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

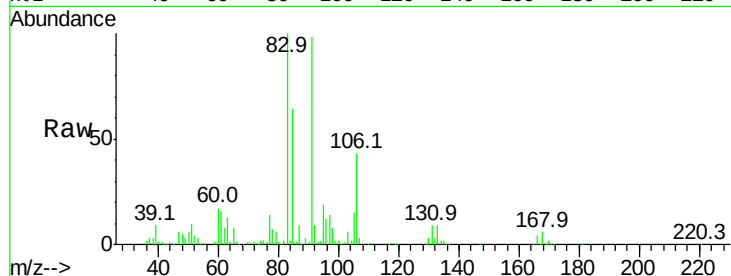
Tgt Ion: 83 Resp: 519937

Ion Ratio Lower Upper

83 100

131 9.7 4.9 14.6

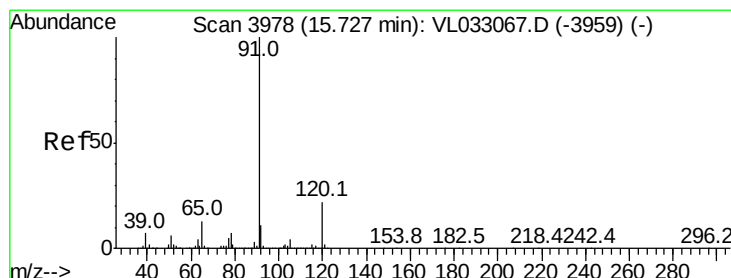
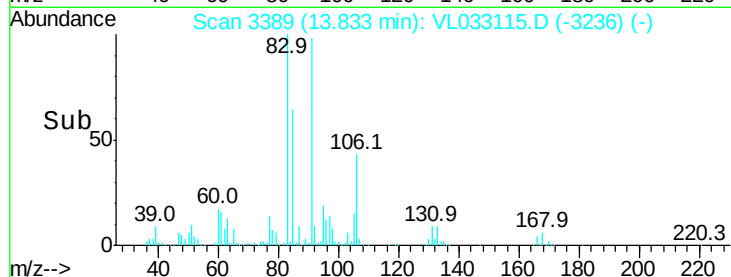
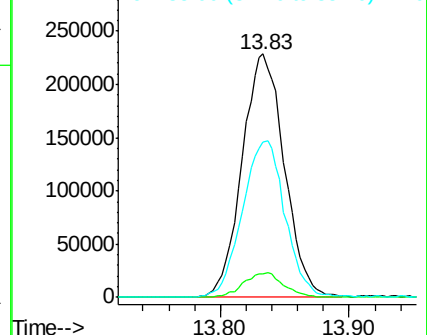
85 65.7 32.5 97.4



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VL0



#64

n-propylbenzene

Concen: 2.131 ppbv

RT: 15.72 min Scan# 3975

Delta R.T. -0.01 min

Lab File: VL033115.D

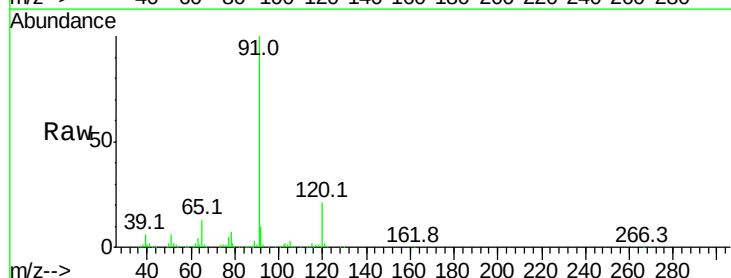
Acq: 28 Jan 2019 16:22

Tgt Ion: 120 Resp: 256060

Ion Ratio Lower Upper

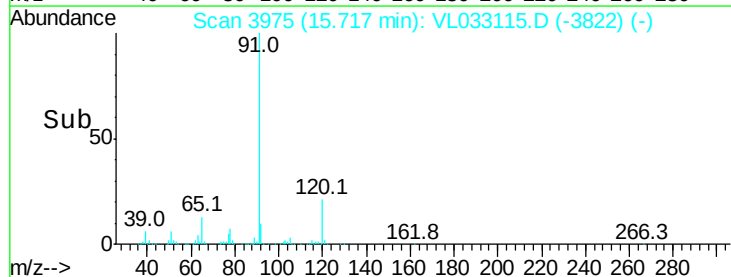
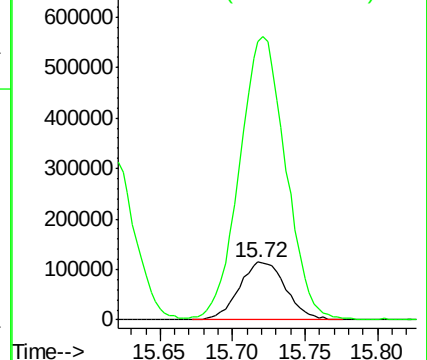
120 100

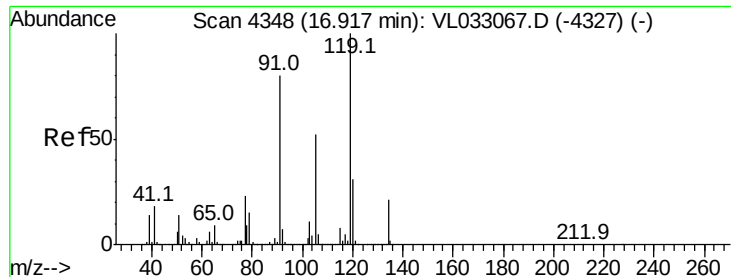
91 485.0 375.7 563.5



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0





#65

tert-Butylbenzene

Concen: 1.124 ppbv

RT: 16.90 min Scan# 4344

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

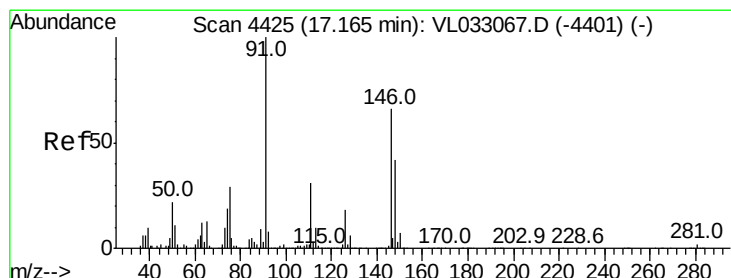
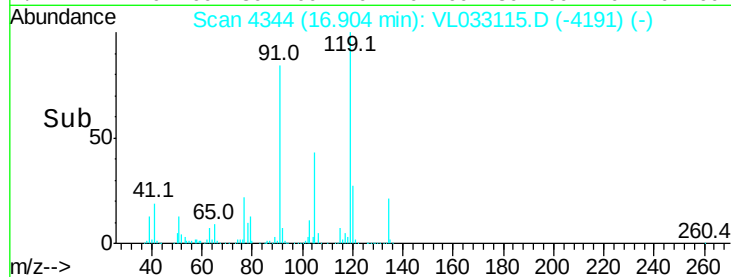
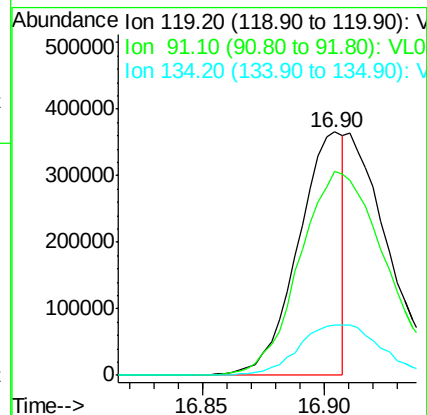
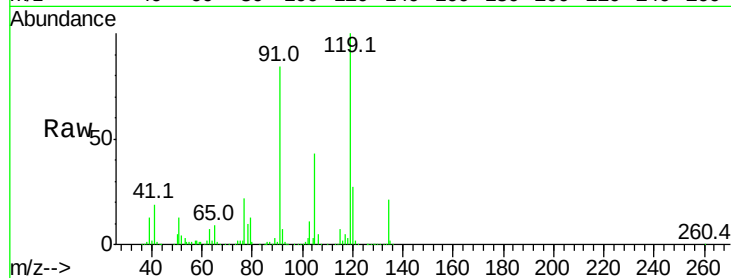
Tgt Ion: 119 Resp: 470782

Ion Ratio Lower Upper

119 100

91 160.0 64.5 96.7#

134 0.0 15.7 23.5#



#66

Benzyl Chloride

Concen: 1.967 ppbv

RT: 17.15 min Scan# 4422

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

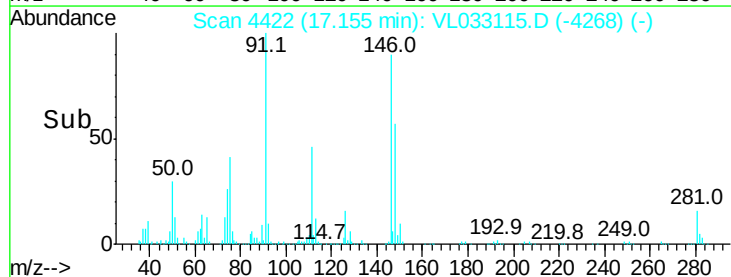
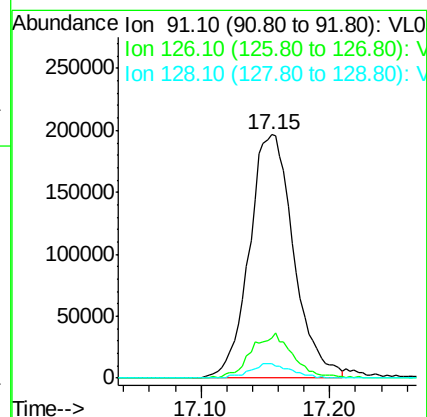
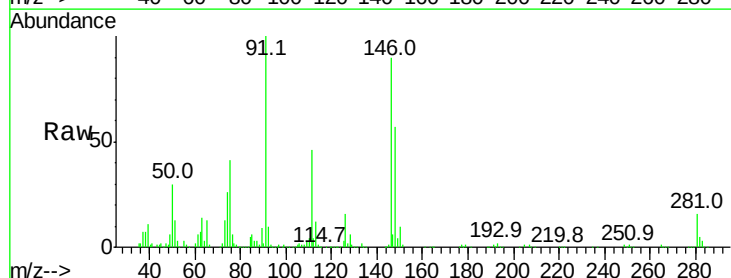
Tgt Ion: 91 Resp: 469579

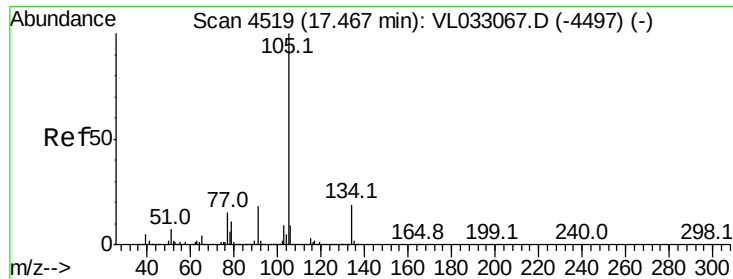
Ion Ratio Lower Upper

91 100

126 17.7 14.3 21.5

128 5.8 4.6 7.0





#67

sec-Butylbenzene

Concen: 2.143 ppbv

RT: 17.46 min Scan# 4516

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

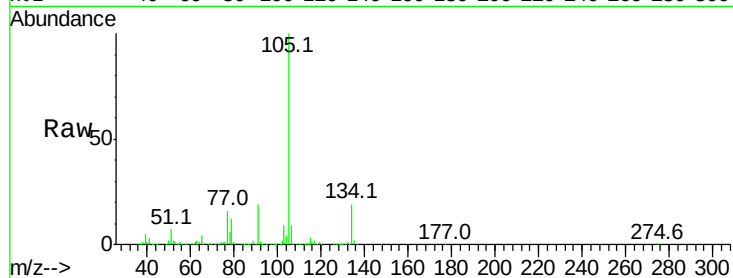
VSTDIC002

Tgt Ion:105 Resp: 1284888

Ion Ratio Lower Upper

105 100

134 17.8 14.8 22.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V

17.46

600000

500000

400000

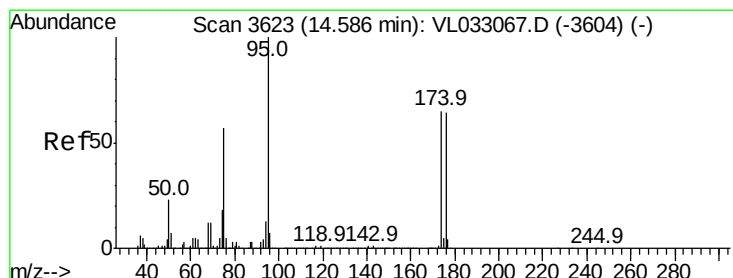
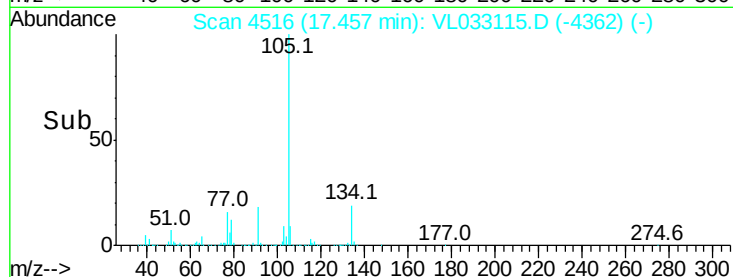
300000

200000

100000

0

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 9.523 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

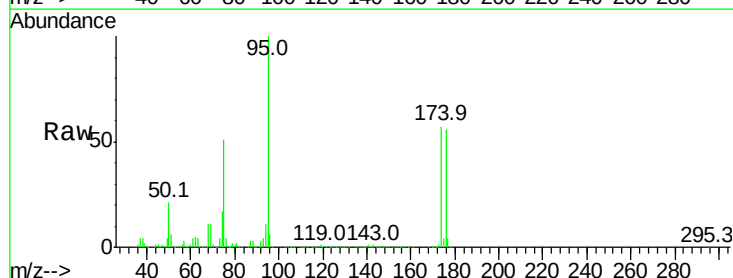
Tgt Ion: 95 Resp: 2121752

Ion Ratio Lower Upper

95 100

174 64.2 51.4 77.2

175 4.9 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

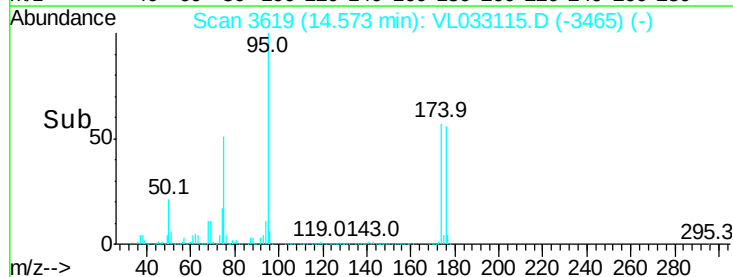
14.57

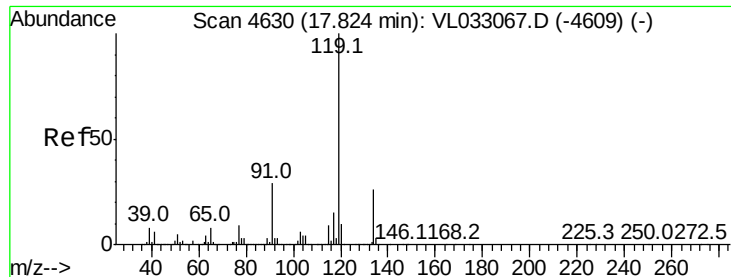
1000000

500000

0

Time-->



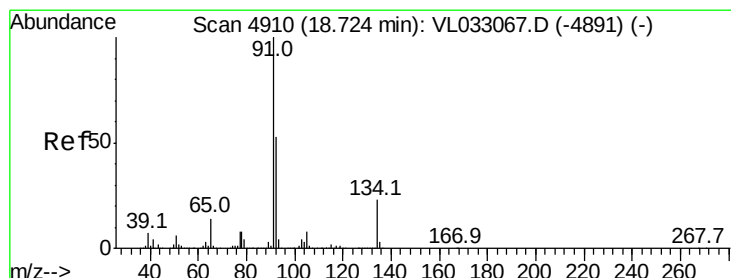
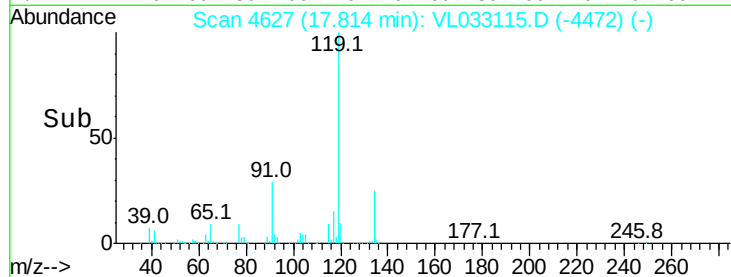
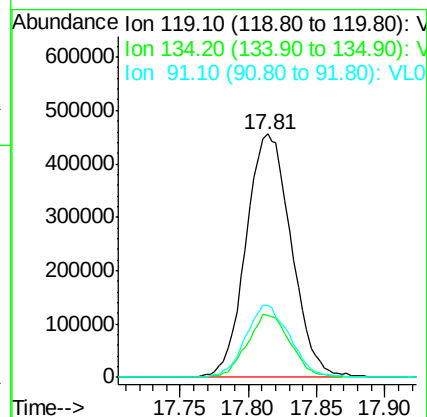
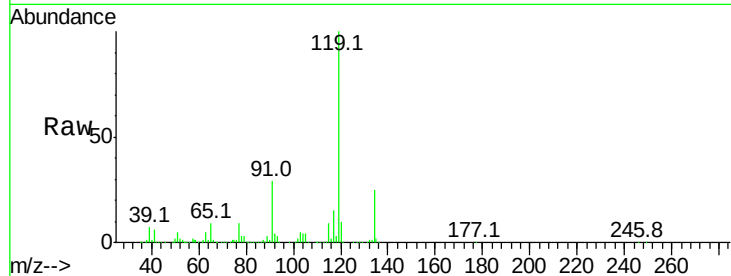


#69  
 p-Isopropyltoluene  
 Concen: 2.151 ppbv  
 RT: 17.81 min Scan# 4627  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Tgt Ion: 119 Resp: 1046609  

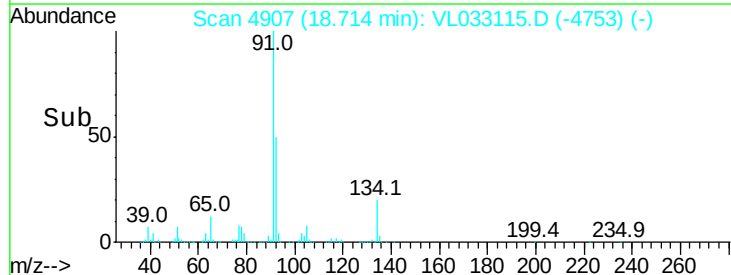
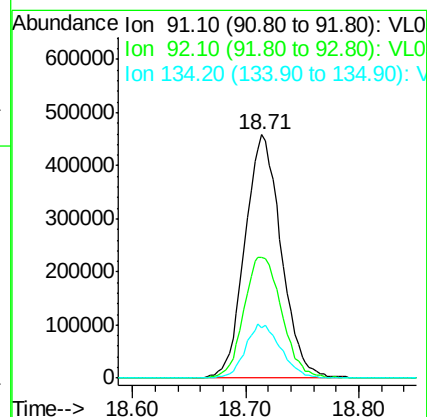
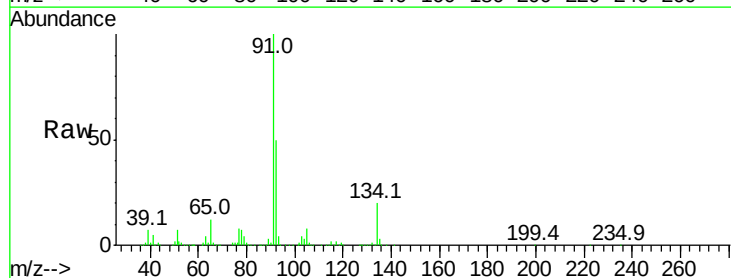
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 119 | 100   |       |       |
| 134 | 24.9  | 20.4  | 30.6  |
| 91  | 29.0  | 22.8  | 34.2  |

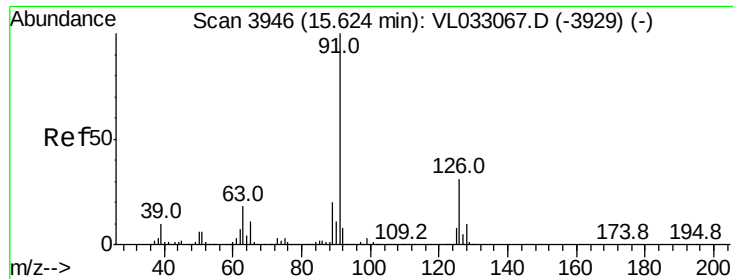


#70  
 n-Butylbenzene  
 Concen: 2.087 ppbv  
 RT: 18.71 min Scan# 4907  
 Delta R.T. -0.00 min  
 Lab File: VL033115.D  
 Acq: 28 Jan 2019 16:22

Tgt Ion: 91 Resp: 1021073  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 91  | 100   |       |       |
| 92  | 52.0  | 43.0  | 64.6  |
| 134 | 21.7  | 18.4  | 27.6  |





#71

2-Chlorotoluene

Concen: 2.186 ppbv

RT: 15.62 min Scan# 3944

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

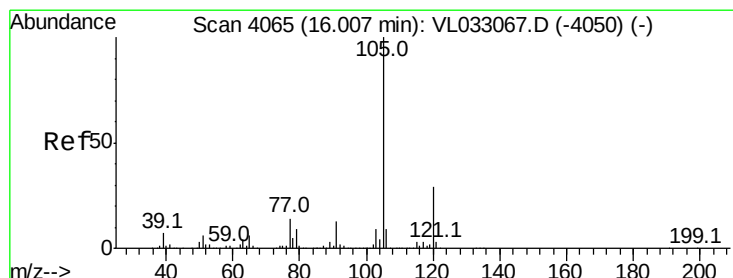
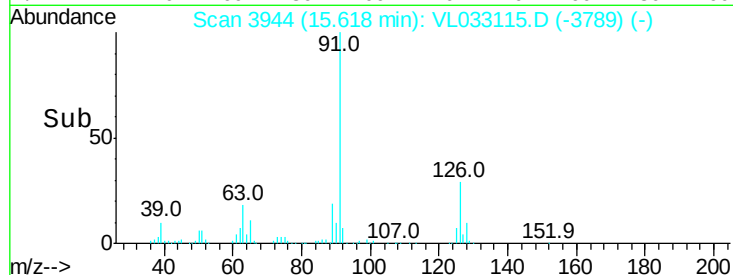
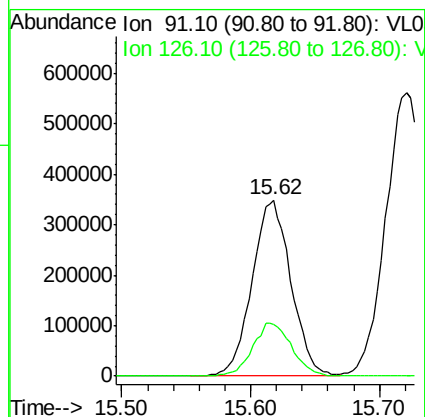
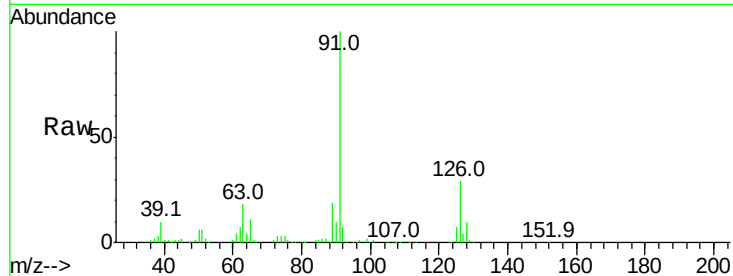
VSTDIC002

Tgt Ion: 91 Resp: 733130

Ion Ratio Lower Upper

91 100

126 30.2 12.4 49.8



#72

4-Ethyltoluene

Concen: 2.143 ppbv

RT: 16.00 min Scan# 4063

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Tgt Ion: 105 Resp: 782550

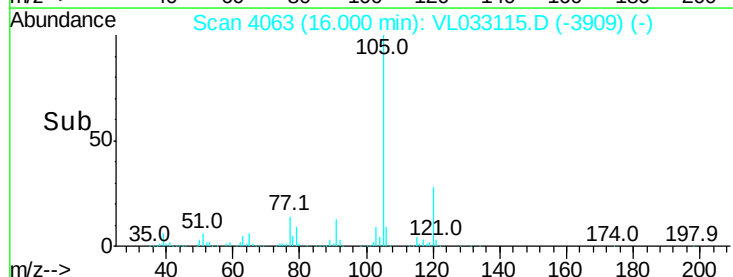
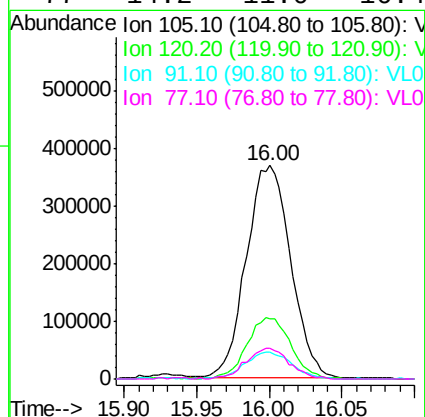
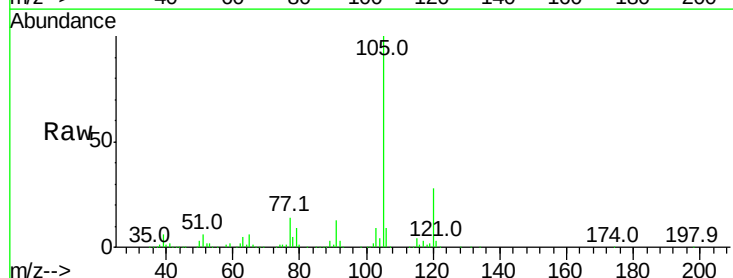
Ion Ratio Lower Upper

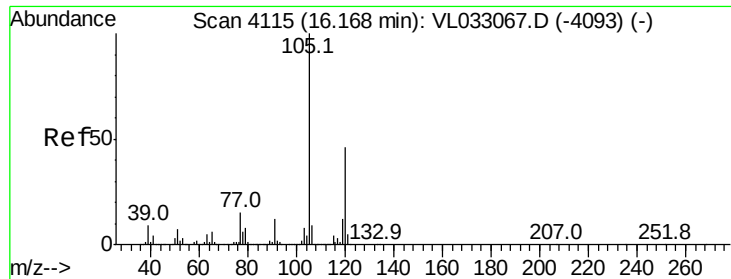
105 100

120 29.1 23.5 35.3

91 13.0 10.3 15.5

77 14.2 11.0 16.4





#73

1,3,5-Trimethylbenzene

Concen: 2.090 ppbv

RT: 16.15 min Scan# 4111

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

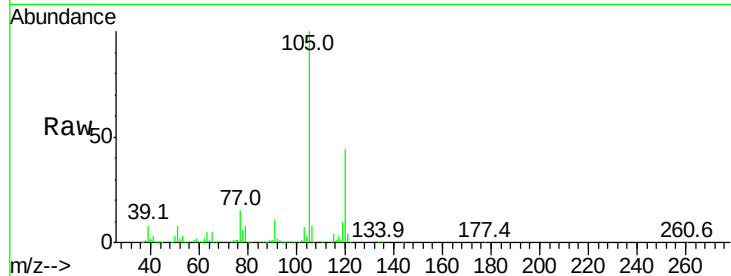
VSTDIC002

Tgt Ion:105 Resp: 753203

Ion Ratio Lower Upper

105 100

120 44.0 37.5 56.3



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.15

400000

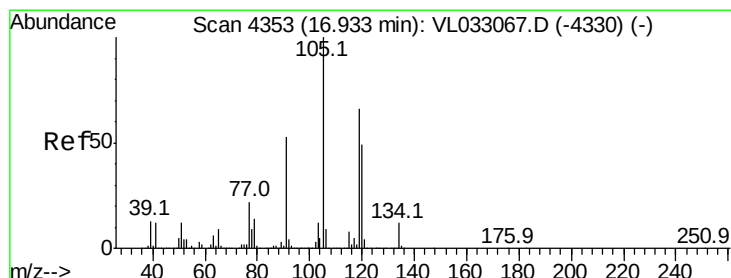
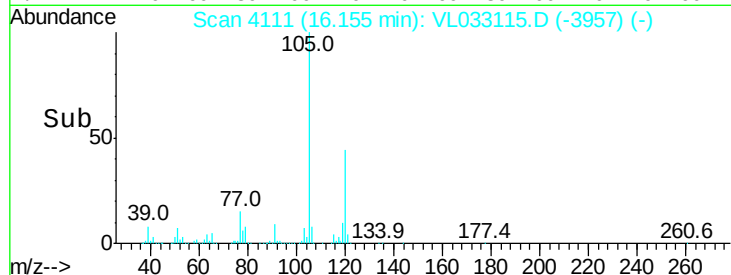
300000

200000

100000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 2.038 ppbv

RT: 16.92 min Scan# 4350

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Tgt Ion:105 Resp: 813328

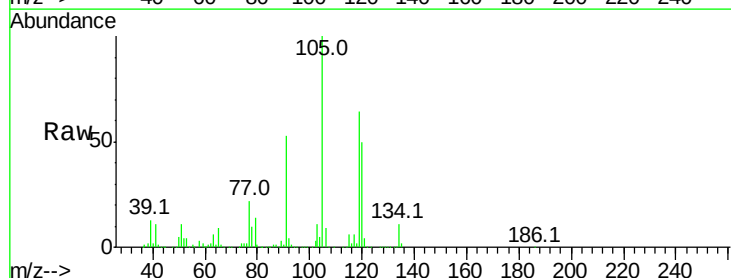
Ion Ratio Lower Upper

105 100

120 49.5 37.9 56.9

91 52.1 39.8 59.8

77 21.7 17.8 26.8



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

500000

400000

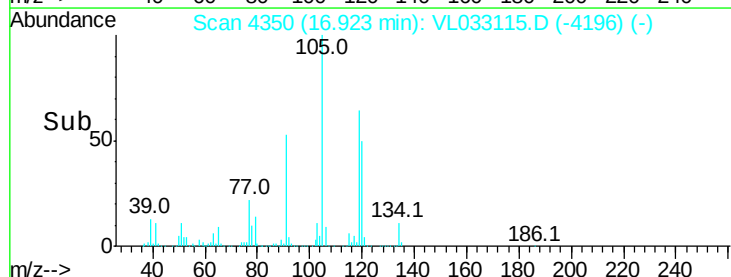
300000

200000

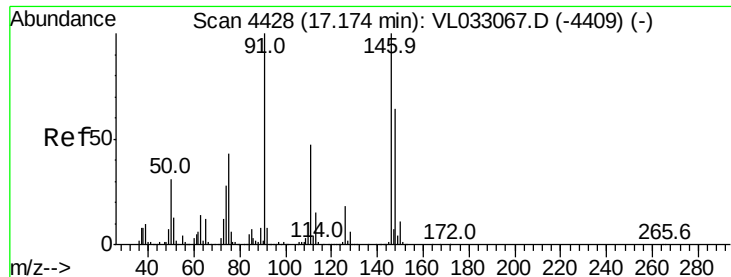
100000

0

Time-->







#75

1,3-Dichlorobenzene

Concen: 1.987 ppbv

RT: 17.16 min Scan# 4424

Delta R.T. -0.01 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

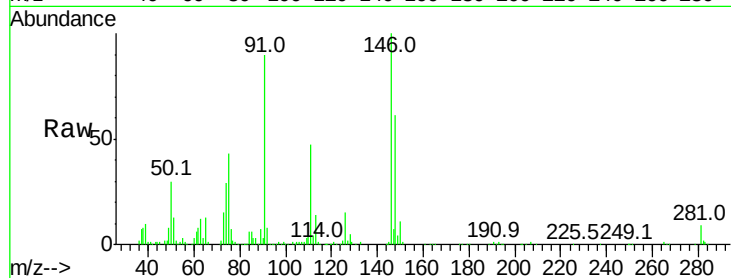
Tgt Ion:146 Resp: 466785

Ion Ratio Lower Upper

146 100

111 47.6 23.4 70.0

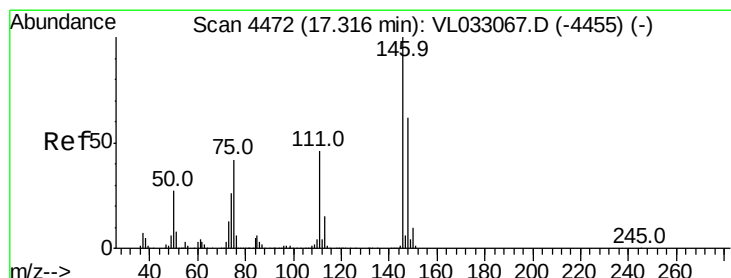
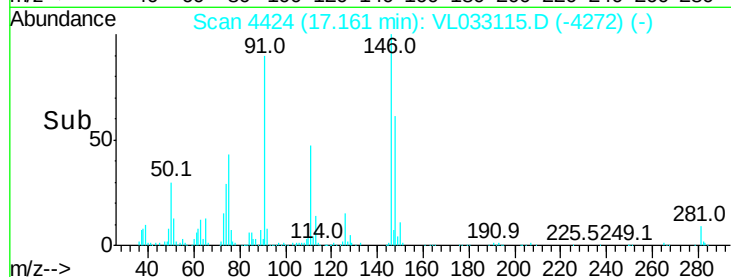
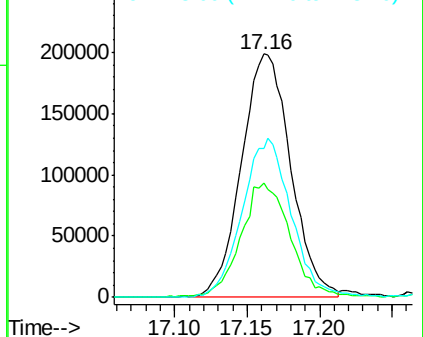
148 65.5 32.1 96.3



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 2.016 ppbv

RT: 17.31 min Scan# 4469

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

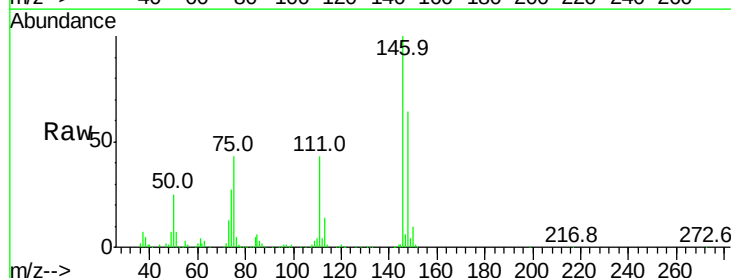
Tgt Ion:146 Resp: 431373

Ion Ratio Lower Upper

146 100

111 45.9 22.7 68.0

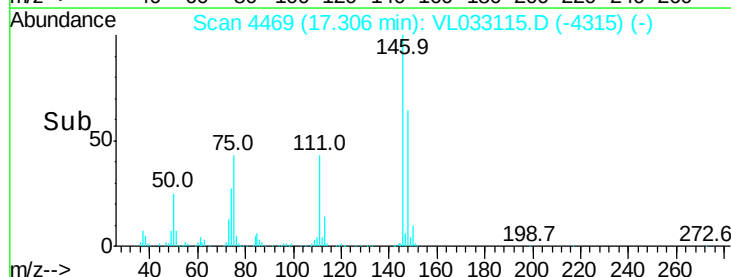
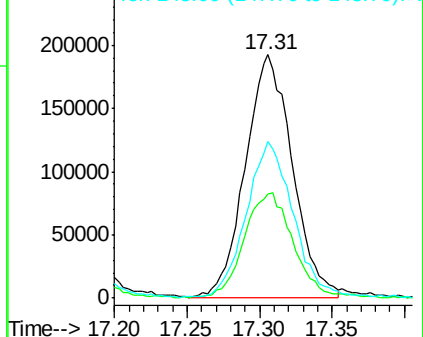
148 66.0 32.1 96.3

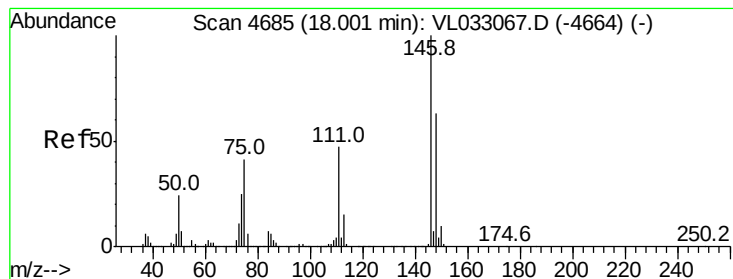


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#77

1,2-Dichlorobenzene

Concen: 2.067 ppbv

RT: 17.99 min Scan# 4681

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

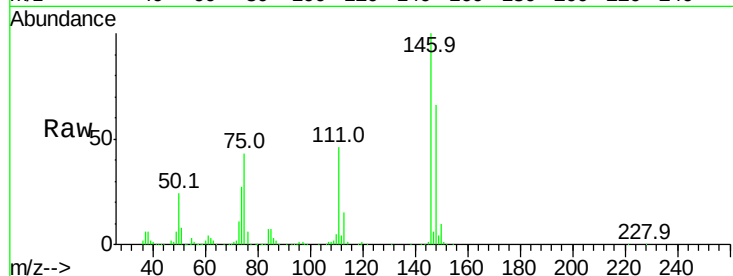
Tgt Ion:146 Resp: 437241

Ion Ratio Lower Upper

146 100

111 49.5 24.4 73.2

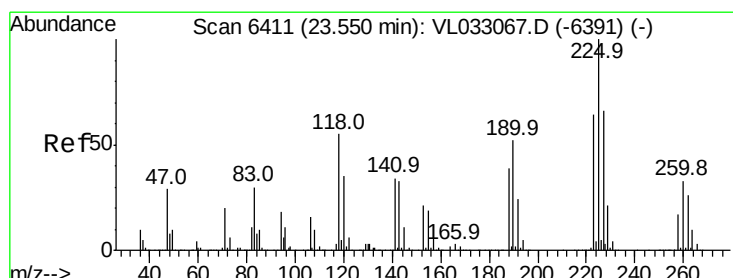
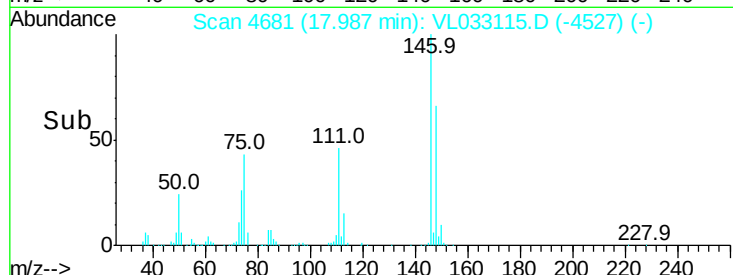
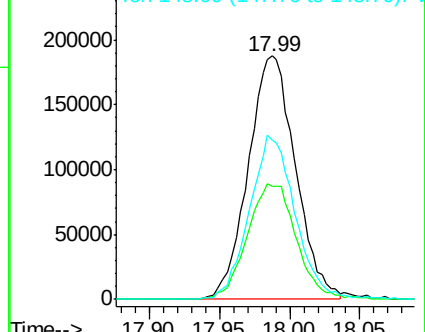
148 65.8 32.6 97.7



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 1.441 ppbv

RT: 23.54 min Scan# 6409

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

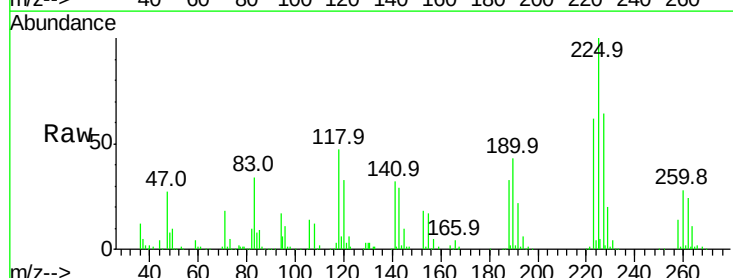
Tgt Ion:225 Resp: 234205

Ion Ratio Lower Upper

225 100

223 63.0 50.5 75.7

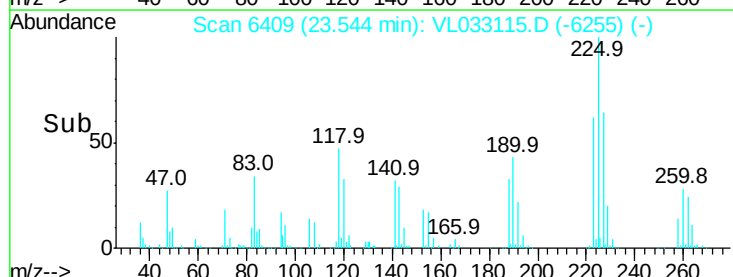
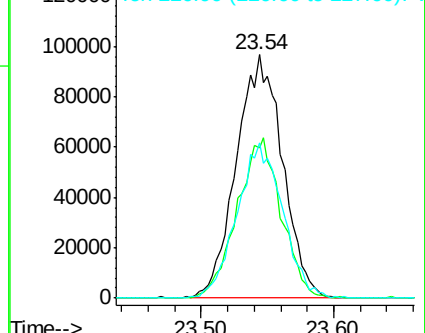
227 62.8 51.0 76.4

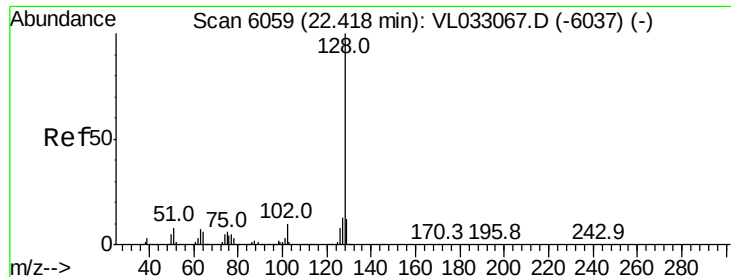


Abundance Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





#79

Naphthalene

Concen: 0.791 ppbv

RT: 22.41 min Scan# 6057

Delta R.T. -0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

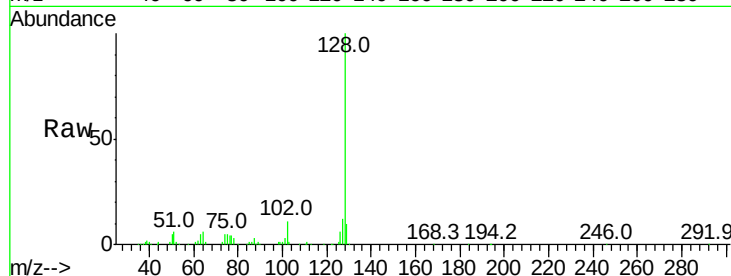
Tgt Ion:128 Resp: 265816

Ion Ratio Lower Upper

128 100

127 11.8 10.6 15.8

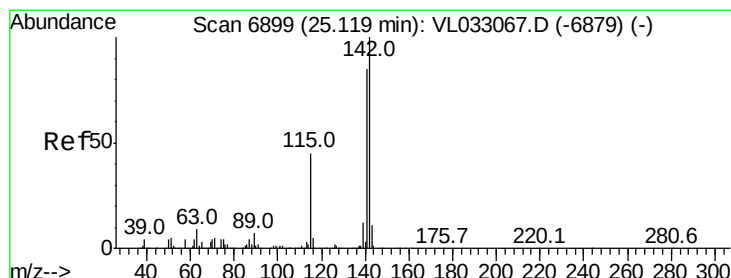
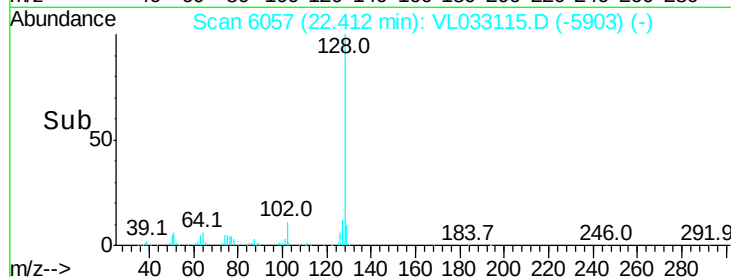
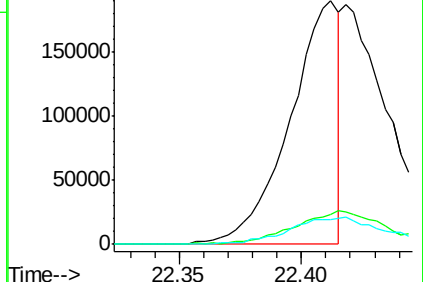
129 10.0 9.2 13.8



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 1.069 ppbv

RT: 25.12 min Scan# 6899

Delta R.T. 0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

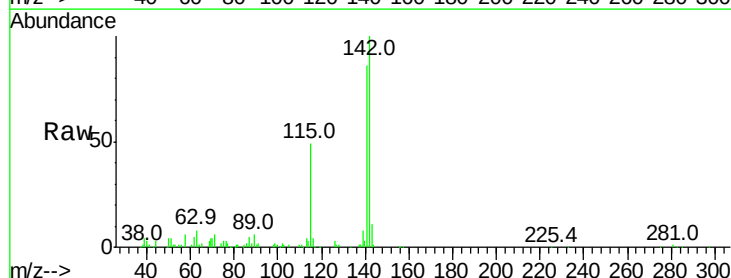
Tgt Ion:142 Resp: 109080

Ion Ratio Lower Upper

142 100

141 89.8 67.4 101.2

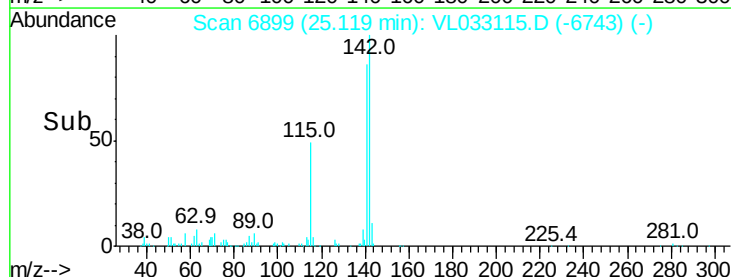
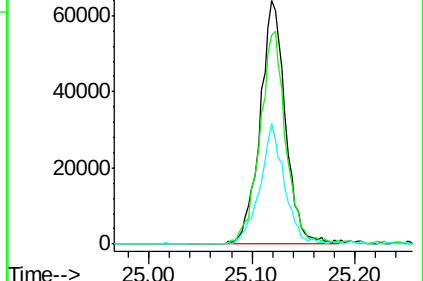
115 47.9 34.9 52.3

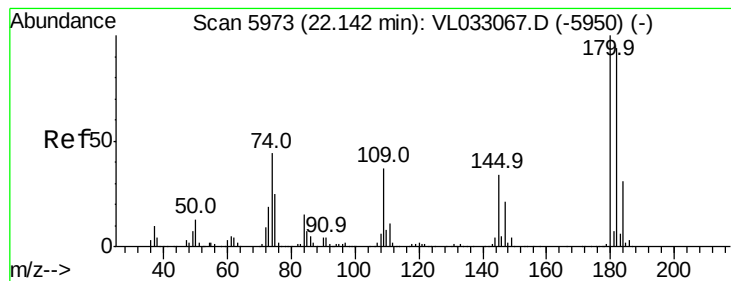


Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V





#81

1,2,4-Trichlorobenzene

Concen: 1.561 ppbv

RT: 22.14 min Scan# 5972

Delta R.T. 0.00 min

Lab File: VL033115.D

Acq: 28 Jan 2019 16:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

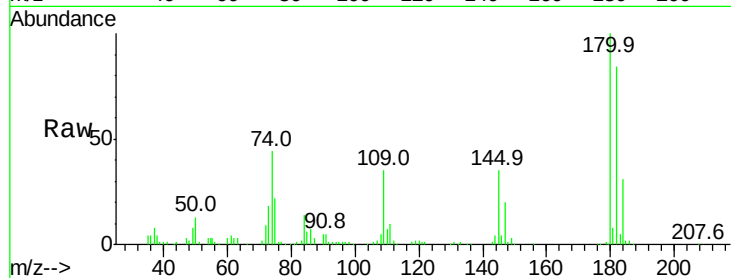
Tgt Ion:180 Resp: 253440

Ion Ratio Lower Upper

180 100

182 95.4 76.5 114.7

184 30.6 24.2 36.4



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 184.00 (183.70 to 184.70): V

